第39回 放射化学討論会

講演発表

講演時間20分(講演15分、討論5分)
* 印の講演は、講演時間30分(講演20分、討論10分)
○印は連名の場合の口頭発表者

第1日　10月2日(月)

特別講演1(S会場)

座　長　　古川路明　　(13:00 ～ 14:00)

1S01　放射能研究の源流をたずね将来を思う
(金沢大) 阪上正信

放射化分析特別講演(C会場)

座　長　　桝本和義　　(15:40 ～ 16:40)

1S02　Fundamental aspects, installation and practical applications of k_0– standardized neutron activation analysis
(Univ. Ghent, Belgium)Frans De Corte

【A会場】

〔核分裂(I)〕

座　長　　横山明彦　　(9:40 ～ 11:00)

1A01　^{232}Th + p における核分裂生成物の角運動量(II)
(新潟大理・東北大サイクロ)○安田健一郎・斉藤大輔・斉藤里栄・後藤真一・工藤久昭・橋本哲夫・藤岡　学・篠塚　勉・藤田正広・渡部あい

1A02　p + ^{232}Th 反応系における核分裂 I
— 分裂片の質量ならびに運動エネルギー分布 —
(東大理・原研・都立大理・新潟大理・金沢大理・東北大核理研・阪大理・Hallym Univ.)○谷川勝至・西中一朗・大浦泰嗣・永目諭一郎・塚田和明・市川進一・池添　博・趙宇亮・末木啓介・中原弘道・工藤久昭・浜島靖典・大槻　勤・高宮幸一・J.H.Chung

1A03 $p + {}^{232}Th$ 反応系における核分裂 II
— 分裂片からの中性子放出 —
(原研・都立大理・新潟大理・金沢大理・東北大核理研・東大理・阪大理・Hallym Univ.)○西中一朗・永目諭一郎・塚田和明・大浦泰嗣・市川進一・池添　博・趙宇亮・末木啓介・中原弘道・工藤久昭・浜島靖典・大槻　勤・谷川勝至・高宮幸一・J.H.Chung

1A04 $^{7}Li + {}^{232}Th$ 反応と $p + {}^{238}U$ 反応によって生成する ^{239}Np の質量分裂の相異性
(都立大理・東大理・原研)○趙宇亮・末木啓介・中原弘道・谷川勝至・永目諭一郎・西中一朗・塚田和明

〔核分裂 (II)〕
座　長　　永目諭一郎　　(11:00 ～ 12:10)

1A05 ^{235}U の熱中性子誘起核分裂の TOF 測定
(阪大理)○高宮幸一・井上貴和・横山明彦・高橋成人・斉藤　直・馬場　宏・中込良廣

1A06 TOF 測定による ^{252}Cf の自発核分裂の研究
(阪大理)○井上貴和・高宮幸一・横山明彦・高橋成人・斉藤　直・馬場　宏

1A07* $^{238}U + {}^{12}C$ 反応系に見られる速い核分裂
(阪大理)○馬場　宏・杜明進・高橋成人・横山明彦・斉藤　直

< 昼 休 み > (12:10 ～ 13:00)
< 特別講演 1 > (13:00 ～ 14:00)

〔核反応・核壊変 (I)〕
座　長　　末木啓介　　(14:20 ～ 15:20)

1A08 中重核領域における光π放出核反応収率の標的核質量依存性
(金沢大理・原研・東大核研・追手門大経・名古屋大理)○羽場宏光・松村宏・吉田幸市・坂本　浩・大浦泰嗣・柴田誠一・藤原一郎・古川路明

1A09 $^{125,126,127}Pr$ の崩壊による Ce 核の低励起状態
(原研・名大工) 長　明彦・浅井雅人・小泉光生・○関根俊明・市川進一・小島康明・山本　洋・河出　清

1A10 新核種 ^{166}Tb の同定
(原研・名大工)○塚田和明・浅井雅人・市川進一・長　明彦・小島康明・篠原伸夫・永目諭一郎・飯村秀紀・西中一朗・初川雄一・柴田理尋・山本洋・河出　清

〔核反応・核壊変 (II)〕

座　長　　柴田誠一　　(15:40 ～ 16:20)

1A11　^{238}U(^{7,6}Li, xn)$^{245,244-x}$Am 反応系の研究

(原研)○初川雄一・畑健太郎・塚田和明・篠原伸夫・大浦泰嗣・永目諭一郎・西中一朗・市川進一

1A12　^{236}Am の探索 (2)

(原研)○大浦泰嗣・塚田和明・西中一朗・初川雄一・篠原伸夫・市川進一・畑　健太郎・永目諭一郎

〔核反応・核壊変 (III)〕

座　長　　関根俊明　　(16:20 ～ 17:20)

1A13　金の中間エネルギー重イオン核反応における核分裂片の角度分布

(名大理・阪大理・愛知医大・理研)○篠原　厚・桐生繁利・向　和彦・室山俊浩・倉知淳史・小島貞男・斉藤　直・横山明彦・大久保嘉高・古川路明・安部文敏

1A14　^{63}Cu(n,p)^{63}Ni 反応の励起関数の測定

(東大核研・理研・東大 RI セ・東北大工)○柴田誠一・柴田徳思・今村峰雄・上蓑義朋・野川憲夫・馬場　護・岩崎　信・松山成男

1A15　K, Ca(p, x)^{36}Cl 反応断面積の測定

— 過去 40 万年の太陽宇宙線の強度とエネルギースペクトル —

(東大核研・UC Berkeley・LANL)○今村峯雄・柴田誠一・西泉邦彦・Robert Reedy

【 核化学分科会 (18:00 ～) 】

【B 会場】

〔マルチトレーサー (I)〕

座　長　　斉藤裕子　　(9:40 ～ 11:10)

1B01*　マルチトレーサー法を用いた生体微量元素間相互作用に関する研究

— 病態モデル動物における生体微量元素の生理生化学的考察 —

(理研)○榎本秀一・劉　斌・前田はるか・安部静子・安部文敏

1B02　医学・生物学へのマルチトレーサの利用：重金属とセレンの生体内相互作用について

(金沢大医技短・理研)○天野良平・大石茂雄・井表美樹・角永敦史・吉田幸世・榎本秀一・安部文敏

1B12 $BaRu_{2/3}M_{1/3}O_3$(M=Ca,Cd,Sr) における$^{117}In(\leftarrow^{117}Cd)\gamma$線摂動角相関
(電通大・理研・京大原子炉)○柳田保雄・中村　仁・大久保嘉高・岡田卓也・安部静子・川瀬洋一・上原進一・浅井吉蔵・安部文敏

1B13 スピネル型磁性酸化物の^{61}Ni メスバウアー分光
(理研・日立映像研)○小林義男・岡田卓也・野呂良彦・北沢英明・安部文敏

〔ミュオン・インビームメスバウアー〕
座　長　　片田元己　　(16:40 ～ 17:20)

1B14 金属アセチルアセトン錯体中の反磁性ミュオンの化学形
(東大理・東大中間子)○久保謙哉・姉川俊幸・荷月秀明・塩保典子・富永健・西山樟生・永嶺謙忠

1B15 理研インビームメスバウア分光装置の開発
(理研・静岡理工科大)○小林義男・吉田　豊・Helmut Hasslein・行平憲一・早川一生・渡辺　康・中村隆司・石原正泰・稲辺尚人・加瀬昌之・後藤　彰・矢野安重・安部文敏

【 ホットアトム・原子核プローブの化学分科会 (18:00 ～) 】

【C会場】

〔分離・定量〕
座　長　　今村峯雄　　(9:40 ～ 11:00)

1C01 放射性ハロゲンの溶媒抽出挙動
(阪大理)○高橋成人・民谷由紀子・馬場　宏

1C02 種々の試薬によるモリブデンの不足当量抽出に関する 2,3 の検討
(NTT 境界研) 重松俊男

1C03 リン酸に含まれる Po-210 の定量
(金沢大理・富士通研)○中西　孝・廣瀬　満・福田裕幸

1C04 $La(dpm)_3$錯体の気相化学反応 (その 2)
(新潟大理)○田村啓子・古越靖武・登坂容子・工藤久昭・橋本哲夫

〔放射化分析 (I) 〕
座　長　　重松俊男　　(11:00 ～ 12:00)

1C05 原子炉水中の FP 稀ガス起源の RI を感度よく検出して炉の破損燃料検出法を開発する研究 (第 3 報)
(立教大原研)○松浦辰男・林　脩平・戸村健児・原沢　進

1C06 機器中性子放射化分析法による環境標準試料ヒジキの多元素定量
(武蔵工大原研)○鈴木章悟・岡田往子・平井昭司

1C07 Trace Element Analysis of Commonly Consumed Food Spices by Neutron Activation Analysis
(金沢大理)○J. H. Zaidi・宮本ユタカ・坂本　浩

＜　昼　休　み　＞　(12:00 ～ 13:00)
＜　特別講演 1　＞　(13:00 ～ 14:00)

〔放射化分析 (II)〕
座　長　　米沢仲四郎　　(14:20 ～ 15:20)

1C08 放射化分析による各種シダ植物中の微量元素についての研究
(東大理・理研)○尾崎卓郎・榎本秀一・藥袋佳孝・安部静子・安部文敏・富永　健

1C09 PIXE および中性子放射化分析法によるラット臓器中の微量元素の定量 (その 1)
(慈恵医大・昭和薬大・理研・RI 協会)○矢永誠人・山本理恵・榎本秀一・二ツ川章二・蛭沼利江子・遠藤和豊・戸澤満智子・安部文敏

1C10 神経難病とミネラル偏食ラットにおける中枢神経組織と骨の放射化分析
(和医大・京大原子炉)○安井昌之・大田喜一郎・笹島和久

＜放射化分析特別講演＞ (15:40 ～ 16:40)

〔放射化分析 (III)〕
座　長　　平井昭司　　(16:40 ～ 17:40)

1C11 中性子放射化分析法によるシリコン基板表面極微量元素分析法の標準化
(NTT 境界研・NTT-LS 研・NTT-AT)○加藤正明・米沢洋樹・籔本周邦・国井泰夫・大録　正・田中真紀子

1C12 即発γ線による大型試料中の主成分元素の非破壊定量法の検討
(都立大理・東大原総セ・原研・慶大文)○佐藤　渉・末木啓介・中原弘道・澤幡弘文・米沢仲四郎・富沢　威

1C13 古代ガラスの原子炉中性子即発ガンマ線分析
(慶大文・原研・東大理)○富沢　威・米沢仲四郎・藥袋佳孝・富永　健

【 放射化分析分科会 (18:00 ～) 】

第2日　10月3日(火)

特別講演 2(S 会場)

座　長　　橋本哲夫　　(13:20 ～ 14:20)

2S01　Influences of the fossilization processes on the fundamentals of radiometric dating

(Institut de Paléontologie Humaine, France) Véronique Michel

【A 会場】

〔中間子の化学〕

座　長　　久保謙哉　　(9:00 ～ 9:40)

2A01　ハロゲン化アンモニウムにおける負パイ中間子捕獲過程

(名大理・高エネ研・阪大理・京大工・追手門学院大経)○村田千裕・篠原厚・室山俊浩・新帯淳一郎・三浦太一・斉藤　直・古川路明・今西信嗣・藤原一郎

2A02　パイ中間子転移過程を含む巨大中間子分子モデルの検討

— 有機液体 2 成分系への適応 —

(名大理・阪大理・愛知医大・信州大教・高エネ研)○室山俊浩・篠原　厚・村田千裕・古川路明・斉藤　直・横山明彦・小島貞男・村松久和・三浦太一

〔フラーレンの化学〕

座　長　　鈴木健訓　　(9:40 ～ 10:40)

2A03　核的手法を用いた放射性フラーレンの生成 (I)

(東北大核理研・都立大理・東北大金研)○桝本和義・大槻　勤・末木啓介・菊地耕一・三頭聰明

2A04　核的手法を用いた放射性フラーレンの生成 (II)

(東北大核理研・都立大理)○大槻　勤・桝本和義・末木啓介・菊池耕一

2A05　^{140}La をプローブとしたフラーレン中の^{140}Ce のγ線摂動角相関 (II)

(都立大理・理研・立教大原研)○末木啓介・小林香奈子・菊池耕一・大久保嘉高・中原弘道・安部文敏・戸村健児

〔RI の化学〕

座　長　　関根　勉　　(11:00 ～ 12:00)

2A06　混合溶媒 (メタノール/水) 系における Nd^{3+} と F^- の間の生成定数に関する研究

(静岡大理・東北大金研)○加藤敏文・菅沼英夫・佐藤伊佐務・大森　巍

2A07 混合溶媒(メタノール/水)系における Eu^{3+} 及び Nd^{3+} と Cl^- の相互作用
(静岡大理・東北大金研)○中村光弘・菅沼英夫・佐藤伊佐務・大森　巍

2A08 混合溶媒(DMSO/水)溶液中におけるランタノイド金属イオンとフッ化物との間の生成定数に関する研究
(静岡大理・東北大金研)○菅沼英夫・加藤敏文・鈴木朗史・佐藤伊佐務・大森　巍

< 昼　休　み >　(12:00 ～ 13:20)
研究連絡委員会(理学部大会議室 12:15 ～ 13:15)
若手の会総会(A 会場 12:15 ～ 13:15)
< 特別講演 2 >　(13:20 ～ 14:20)
< ポスターセッション >
ショートプレゼンテーション(S 会場 14:40 ～ 16:10)
発表(P 会場 16:10 ～ 17:40)

【 懇親会　18:00 ～ 20:00 】

【B 会場】

〔放射線効果〕

座　長　　天野良平　　(9:00 ～ 10:00)

2B01 γ線照射された $K_2(PtCl_4)$ 水溶液における放射線生成物とその殺細胞効果
(京大原子炉) 田中愛子・隅野照家・河合健一・高田実弥・○赤星光彦

2B02 トリチウム水中における DNA 鎖切断に対する茶カテキン類の防御機構
(静岡大理・静岡県立大環境)○黒嵜　拓・吉岡　寿・吉岡濶江・長谷川圀彦

2B03 遷移金属による DNA 鎖切断に対する茶カテキンの防御効果とその機構(II)
— ^{59}Fe トレーサーによる鉄クエン酸錯体の酸化還元挙動 —
(静岡大理)○吉岡濶江・吉岡　寿・長谷川圀彦

〔ホットアトム〕

座　長　　酒井陽一　　(10:00 ～ 10:50)

2B04 メタロセン誘導体における反跳原子の固体化学反応(3)
— インプランテーション反応との比較 —
(東北大院理)○山口　巌・関根　勉・工藤博司

2B05* 水溶性金属ポルフィリン錯体イオン会合系固相における反跳に伴う錯体生成に見られるいくつかの傾向
(筑波大化) 荘司　準

〔メスバウアー化学 (I)〕

座　長　　松尾基之　　(11:00 ～ 12:00)

2B06　ネプツニウム化合物のメスバウア分光学的研究 (その 3)
(原研・東邦大理)○佐伯正克・中田正美・正木信行・吉永知弘

2B07　ネプツニウム化合物のメスバウア分光学的研究 (その 4)
— 化合物測定法の確立と 20%NpO_2-UO_2混合酸化物の測定 —
(原研・東邦大理)○中田正美・正木信之・佐伯正克・山下利之・吉永知弘

2B08　メスバウア分光法における Eu-Nb 複合酸化物の研究
— 主に化合物 $Eu_2Nb_2O_3$について —
(原研)○正木信行・中田正美・佐伯正克・中村彰夫

< 昼　休　み >　(12:00 ～ 13:20)
研究連絡委員会 (理学部大会議室 12:15 ～ 13:15)
若手の会総会 (A 会場 12:15 ～ 13:15)

< 特別講演 2 >　(13:20 ～ 14:20)

< ポスターセッション >
ショートプレゼンテーション (S 会場 14:40 ～ 16:10)
発表 (P 会場 16:10 ～ 17:40)

【 懇親会　18:00 ～ 20:00 】

【C 会場】

〔環境放射能 (I)〕

座　長　　百島則幸　　(9:00 ～ 10:00)

2C01　中国・吐魯番盆地、塩類化土壌における元素の挙動
(青学大理工・理研)○新城則子・原川裕章・斉藤裕子・木村　幹・矢吹貞代・岡田昭彦

2C02　琵琶湖底堆積物中の微量元素分布と^{210}Pb と^{137}Cs の測定による堆積年代の推定
(愛知医大・名大年代センター・琵琶湖研・名大理)○小島貞男・中村俊夫・横田喜一郎・曽我恭子・古川路明

2C03　山岳地域におけるフォールアウト核種の調査
(動燃人形)○小野高行・古田定昭・中島裕治

〔環境放射能 (II)〕

座　長　　小林貴之　　(10:00 ～ 10:40)

2C04　森林土壌におけるトリチウムサイクル

(九大理・九大工)○柿内秀樹・百島則幸・前田米蔵・岡井富雄

2C05　太平洋表面海水と森林腐葉中のテクネチウム-99

(九大理) ムハマド-サヤド・○百島則幸・柿内秀樹・前田米蔵

〔環境放射能 (III)〕

座　長　　小村和久　　(11:00 ～ 12:00)

2C06　台湾北投温泉で採取した放射性鉱物北投石の放射能と化学組成

(九大理・九大 RI セ・九大院比較社文・九環協・台湾中原大)○仁田純一・百島則幸・杉原真司・前田米蔵・進野　勇・松岡信明・黄金旺

2C07　森林における放射性降下物の蓄積と移動

(九大理・九大農・九大 RI セ)○馬場智子・井倉洋二・杉原真司・大崎進・前田米蔵

2C08　フォールアウト起源^{137}Cs の局地的再浮遊

(宮城県原子力セ・東北大院理・東北文化学園)○石川陽一・小川　武・嵯峨京時・森　巻明・関根　勉・吉原賢二

＜ 昼　休　み ＞　(12:00 ～ 13:20)

研究連絡委員会 (理学部大会議室 12:15 ～ 13:15)

若手の会総会 (A 会場 12:15 ～ 13:15)

＜ 特別講演 2 ＞　(13:20 ～ 14:20)

＜ ポスターセッション ＞

ショートプレゼンテーション (S 会場 14:40 ～ 16:10)

発表 (P 会場 16:10 ～ 17:40)

【 懇親会　18:00 ～ 20:00 】

【ポスターセッション】

ショートプレゼンテーション (S 会場 14:40 ～ 16:10)

発表 (P 会場 16:10 ～ 17:40)

2P01 宇宙線生成核種^{22}Na のバックグラウンドの季節変動

(福井県原子力セ)○徳山秀樹・五十嵐修一

2P02 名古屋における降水中^{7}Be 濃度と^{210}Pb 濃度の経年変化

(名大理・愛知医大)○曽我恭子・小田寛貴・篠原　厚・古川路明・小島貞男

2P03 バナジウムの放射化分析値をプローブとする富士山周辺の天然水の移動の研究

(大同工大・立教大原研)○酒井陽一・輿水達司・大下一政・戸村健児

2P04 水中のラドン濃度の測定法の検討

(静岡大理)○大野敦史・吉岡潤江・長谷川圀彦

2P05 土壌中のヨウ素の挙動について

(筑波大化学)○鳥丸ひろみ・関　李紀・池田龍一

2P06 熱処理に基づく天然石英からの熱ルミネッセンス発光の変化

(新潟大理) 橋本哲夫・○小西正芳・兼田朋廣

2P07 極微弱光瞬間分光システムを用いた白色鉱物からの熱ルミネッセンス特性について

(新潟大理)○橋本哲夫・布袋田真大

2P08 40–90MeV 領域における高エネルギー中性子核反応断面積の測定 III

(東大核研・東北大サイクロ・原研)○今村峯雄・柴田誠一・中尾徳昌・柴田徳思・金琅珠・紺野敦子・中村尚司・田中　進・中島　宏

2P09 中間エネルギー領域における^{14}N + ^{165}Ho 系、^{40}Ar + ^{141}Pr 系の重イオン反応

(阪大理・理研・名大理)○向　和彦・横山明彦・斉藤　直・馬場　宏・大久保嘉高・桐生繁利・村田千裕・室山俊浩・篠原　厚・古川路明

2P10 ^{238}U 陽子誘起核分裂の励起エネルギー依存性

(阪大理・原研)○横山明彦・高橋成人・馬場　宏・春日良一・井上貴和・高宮幸一・塚田和明・初川雄一・篠原伸夫・永目諭一郎

2P11 α崩壊に伴う制動輻射の探索 (II)

(東北大核理研)○大槻　勤・結城秀行・青木由香・山崎寛仁・笠木次郎太

2P12 東大新タンデム加速器による AMS

(日大文理・東大核研・東大資料館・北里大理・東大理・東大原総セ)○永井尚生・今村峰雄・柴田誠一・吉田邦夫・小林貴之・谷川勝至・羽鳥　聡・中野忠一郎・小林紘一

第3日　10月4日(水)

【A会場】

〔Tc,Reの化学(I)〕

座　長　　深沢哲生　　(9:00 ～ 10:20)

3A01　^{186}Reによる HMDP の標識
(東大 RI 総セ・千葉大薬)○野川憲夫・大橋國雄・巻出義紘・宮沢　香・百瀬静香・森川尚威

3A02　レニウム-フリルジオキシム錯体の生成反応
(静岡大理)○池田　潔・菅沼英夫・大森　巍

3A03　$Fe(phen)_3^{2+}$による過テクネチウム酸イオンの分光光度定量(3)
(静岡大理)○長﨑　和・菅沼英夫・大森　巍

3A04　TPAC によるテトラクロロニトリドテクネチウム(VI)酸イオンの溶媒抽出挙動
(静岡大理)○朝比奈千枝・菅沼英夫・大森　巍

〔Tc,Reの化学(II)〕

座　長　　大橋國雄　　(10:40 ～ 12:00)

3A05　四座シッフ塩基配位子をもつニトリドテクネチウム錯体の合成と中心金属の還元をともなう生成過程
(東北大院理)○高山　努・可児祐子・関根　勉・工藤博司

3A06　アミンオキシム配位子(PnAO)をもつニトリドテクネチウム錯体の合成と構造決定
(東北大院理)○可児祐子・高山　努・猪俣慎二・関根　勉・工藤博司

3A07　水溶液中のテクネチウム化学種分析
— フェロインとTcO_4^-のイオン対抽出とレーザー光音響法による高感度検出 —
(東北大院理・静岡大理)○内藤彩子・関根　勉・工藤博司・大森　巍

3A08　TBP を用いた尿からのテクネチウムの溶媒抽出(2)
(原研)○渡辺　智・橋本和幸

＜　昼　休　み　＞　(12:00 ～ 13:00)

〔吸着〕

座　長　　工藤博司　　(13:00 ～ 14:00)

3A09　Na 型モンモリロナイトへのアメリシウム (III) とランタニド (III) の吸着
(東大院工)○長崎晋也・田中　知

3A10　マルチトレーサー法を用いた金属イオンのα–Fe_2O_3への吸着および脱着の研究
(理研・東邦大)○岩田真紀・安部静子・飯島由英・岩本正子・前田はるか・安部文敏

3A11　マルチトレーサーによる強酸性陽イオン交換樹脂 Nafion のイオン交換吸着とその分析化学への応用
(青学大理工・理研)○関口明子・伊藤直弥・古里直久・斉藤裕子・木村幹・前田はるか・安部静子・安部文敏

〔吸着・溶解度〕

座　長　　吉岡潤江　　(14:00 ～ 14:50)

3A12*　C-14 を用いた金属表面に対する炭酸ガスの吸着特性の研究
(阪府大先端科学研・ネオス中央研)○朝野武美・柴田せつこ・川野瑛子・河村俊一・則武　勲・上田勝彦・鮫島貞一郎

3A13　水酸化サマリウムの溶解度測定と加水分解定数の算出
— Unified Theory の適用妥当性について —
(動燃)○澁谷早苗・澁谷朝紀・吉川英樹・油井三和

〔錯体構造〕

座　長　　菅沼英夫　　(15:00 ～ 16:00)

3A14　ジアミド抽出系におけるランタノイド錯体の構造研究
(青学大理工・原研)○成田弘一・木村　幹・矢板　毅・館盛勝一

3A15　ジアミドによるアクチノイド、ランタノイド (III) 抽出におけるジカルボリドの協同効果
(原研)○矢板　毅・館盛勝一

3A16　レーザー誘起蛍光法によるポリカルボン酸錯体中のユウロピウム (III) の溶存状態に関する研究
(東大理・原研)○高橋嘉夫・木村貴海・加藤義春・藥袋佳孝・富永　健

〔同位体交換〕

座　長　　高橋成人　　(16:00 ～ 17:00)

3A17　酸素同位体交換平衡における異常同位体効果
(東京工大原工研) 小高正敬

3A18　同一物質中にある OH 基と NH_2基との反応性の相互比較 (水素同位体交換反応の利用)
(新潟大工) 今泉　洋・○湯本嘉恭

3A19　水素同位体交換反応における一置換ベンゼンチオールの反応性の温度変化
(新潟大工) 今泉　洋・○山内　薫

【B 会場】

〔メスバウアー化学 (II)〕

座　長　　村松久和　　(9:00 ～ 9:40)

3B01　レーザー蒸発法により生成した鉄微粒子のメスバウアースペクトル
(東大理)○山田康洋・角野浩史・富永　健

3B02　本邦産砂鉄のメスバウアースペクトル
(東大理・武蔵工大原研)○薬袋佳孝・西村理恵子・岡田往子・平井昭司・富永　健

〔メスバウアー化学 (III)〕

座　長　　西田哲明　　(9:40 ～ 10:40)

3B03　環状有機アンチモン (III) 化合物の^{121}Sb と^{127}I メスバウアースペクトル
(東邦大理・東大原総セ・Johannes Gutenberg 大)○前田正樹・高橋　正・北澤孝史・竹田満州雄・澤幡浩之・伊藤泰男・Elmar Bräu・Martin Dräger

3B04　カルボン酸がキレート配位したヨウ素 (III) 錯体の結晶構造と^{127}I メスバウアースペクトル
(東邦大理・東大原総セ)○吉永知弘・北澤孝史・高橋　正・竹田満州雄・澤幡浩之・伊藤泰男

3B05　二次元金属シアノ錯体 $Fe(py)_2Ni(CN)_4$の^{57}Fe メスバウアースペクトルの温度依存性
(東邦大理)○北澤孝史・五味祐二・高橋　正・竹田満州雄

〔メスバウアー化学 (IV)〕

座　長　　小林義男　　(11:00 ～ 12:00)

3B06　混合原子価鉄錯体が示す分子内電子移動の速度論的解析

(都立大理・昭和薬大薬・大妻女子大)○中本忠宏・片田元己・北川　進・遠藤和豊・佐野博敏

3B07　Mössbauer Spectroscopic Studies on Thermal Decomposition Products of $Na_3[Fe(CN)_5L]nH_2O$

(都立大理)○R. B. Lanjewar・川田　知・北川　進・片田元己

3B08　鉄-希土類錯体のメスバウアー分光学的研究

(都立大理)○名和達彦・熊谷　等・川田　知・北川　進・片田元己

＜　昼　休　み　＞　(12:00 ～ 13:00)

〔メスバウアー化学 (V)〕

座　長　　前田米蔵　　(13:00 ～ 14:00)

3B09　細孔性シリカゲルに担持した酸化鉄の超常磁性挙動

(生命工研・物質研)○飯島誠一郎・水谷文雄・野村　明

3B10　球状シリカ上のフェロセンのメスバウアー分光法による研究

(東理大理・東大教養)○角谷敏樹・松尾基之・佐藤春雄

3B11　メスバウアー分光法によるアルミノケイ酸塩表面に吸着された鉄イオンの状態分析

(東大教養)○宮崎あかね・松尾基之

〔メスバウアー化学 (VI)〕

座　長　　薬袋佳孝　　(14:00 ～ 14:50)

3B12*　メスバウアー効果の非晶質材料化学への応用

(九大理) 西田哲明

3B13　^{57}Fe-メスバウアー分光法による機能性ガラスの結晶化機構の解明とTg-Δ則の検証

(九大理)○久冨木志郎・西田哲明・前田米蔵

〔メスバウアー化学 (VII)〕

座　長　　酒井　宏　　(15:00 ～ 16:00)

3B14　ヒザラガイの歯舌に濃集した鉄の状態分析

(東大教養・東理大応化・放医研)○沼子千弥・松尾基之・中井　泉・石井紀明・高野穆一郎

3B15 メスバウアー分光法を用いた硫酸還元菌による鉄化合物の状態変化に関する研究
(東大教養・東邦大医)○川上美也子・松尾基之・杉森賢司

3B16 酸性雨の影響による鉄箔上腐食生成物の内部転換電子メスバウアー分光法による研究
(滋賀医大)○中西章夫・福村和子・小林隆幸

〔メスバウアー化学 (VIII)〕
座　長　竹田満州雄　(16:00 ～ 17:00)

3B17 メスバウアー分光法による有機金属化合物包接体の動的過程の研究
(広大理・広大 RI セ・甲南大理)○中下光頼・中島　覚・酒井　宏

3B18 メスバウアー分光法によるアザフェロセン及びそのチオ尿素包接体の研究
(広大理・広大 RI セ・甲南大理)○北尾貴彦・稲村仁美・中島　覚・酒井宏

3B19 α–ジイミン Fe(II) 錯体-モンモリロナイト・インターカレーション化合物のメスバウアー分光学的研究
(昭和薬大薬・都立大 RI)○遠藤和豊・中本忠宏・岡崎悟史・斉藤育子・本田智香子・神崎　愷・片田元巳

【C 会場】

〔環境放射能 (IV)〕
座　長　関　李紀　(9:00 ～ 10:10)

3C01 尾小屋地下測定室の現状と測定器のバックグラウンド特性
(金沢大 LLRL) 小村和久・○山崎誠二・上野　馨

3C02* Sellafield 再処理工場周辺海域での超ウラン元素の輸送機構
(金沢大理 LLRL・North Wales Univ.)○桑原　潤・山本政義・小村和久・上野　馨・D.J.Assinder

3C03 1995 年 2 月 18 日落下の根上隕石の宇宙線生成核種
(金沢大 LLRL・金沢大理)○小村和久・宮本ユタカ・中西　孝・坂本　浩

〔環境放射能 (V)〕
座　長　小島貞男　(10:10 ～ 10:50)

3C04 東部北太平洋の海水・海底堆積物柱中の Pu-239,240 と Am-241 の深度分布
(金沢大理)○ハク M. A.・村松真文・中西　孝

3C05 風送塵中の Pu-239、240 と Am-241
(金沢大理)○柴　由美子・ハク M. A.・中西　孝

〔環境放射能 (VI)〕

座　長　　中西　孝　　(11:00 ～ 12:00)

3C06　使用済核燃料の長期保管に関する問題点について
(名大理) 古川路明

3C07　高エネルギー加速器施設の放射線管理上の諸問題 (I)
— 土遮蔽体の放射化について —
(高エネ研)○沼尻正晴・鈴木健訓・沖　雄一・三浦太一・近藤健次郎

3C08　無担体核種を含む放射性エアロゾルの発生とその生成機構 (II)
(高エネ研)○沖　雄一・沼尻正晴・鈴木健訓・神田征夫・近藤健次郎

< 昼 休 み > (12:00 ～ 13:00)

〔測定技術・計測法 (I)〕

座　長　　岸川俊明　　(13:00 ～ 14:00)

3C09　ICP-MS による考古学試料の鉛同位体比分析法の検討
(九環協・九電総研・九大理・前原市教委)○松岡信明・川村秀久・佐伯國夫・小池正実・百島則幸・岡部裕俊

3C10　光音響分光法による溶液中核種の測定技術
(日立電開本・原研)○深澤哲生・松井哲也・河村文雄・木原武弘・藤根幸雄・前田　充

3C11　即発γ線のドップラー拡がり解析による、高エネルギー^{7*}Li に対する阻止能の化学的・物理的効果の研究
(大同工大・原研・東大原総セ)○酒井陽一・米沢仲四郎・松江秀明・澤幡浩之・伊藤泰男

〔測定技術・計測法 (II)〕

座　長　　篠原　厚　　(14:00 ～ 14:50)

3C12*　^{111}In を用いた特性 X 線干渉法による 1 分子層光活性物質の構造変化計測
(日立基礎研・東北大金研)○佐々木裕次・鈴木芳生・富岡　安・高橋三幸・佐藤伊佐務

3C13　光電ピーク波形の全エネルギーピークにおよぼすランダムサミングの影響
(熊大工) 岸川俊明

〔測定技術・計測法 (III)〕

座　長　　斉藤　直　　(15:00 ～ 16:10)

3C14　チェレンコフ測定による放射能決定の信頼性

(東京医歯大・慈恵医大・原研)○藤井張生・瀧上　誠・名竹孝志・油井多丸

3C15　液体シンチレーションカウンタ由来パルスのα/β波形弁別と時間間隔解析法 (TIA) を用いた微弱α放射体の検出定量

(新潟大理) 橋本哲夫・○福山直人・米山裕美子・岩橋貴志・手代木泰浩

3C16*　放射線同時計測のためのホスウィッチ検出器の開発

(原研) 臼田重和

〔測定技術・計測法 (IV)〕

座　長　　遠藤和豊　　(16:10 ～ 17:10)

3C17　絶縁性鉱物に対する光励起ルミネッセンス (OSL:Optically Stimulated Luminescence) の基礎研究

(新潟大理・阪大基礎工・京大原子炉) 橋本哲夫・○能登屋　信・須貝紀之・宮武陽子・長谷博友

3C18　岩石薄片からの放射線誘起各種ルミネッセンスカラー画像観測

(新潟大理) 橋本哲夫・○有村俊彦・田中美紀

3C19　日本式双晶 (水晶) からの放射線誘起ルミネッセンスカラー画像とアルミニウム不純物分布パターン

(新潟大理) 橋本哲夫・○高橋英史・尾島　哲

LIST OF PAPERS

presented at

The 39th Symposium on Radiochemistry

Organizer

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October 2 — 4, 1995

Faculty of Science

Niigata University

Plenary Lectures

Monday, October 2
(13:00 — 14:00)

1S01 THE ORIGIN OF RADIOACTIVITY STUDY AND ITS EARLY DEVELOPMENTS WITH ITS FUTURE

Masanobu SAKANOUE, *Kanazawa University*

Tuesday, October 3
(13:20 — 14:20)

2S01 INFLUENCES OF THE FOSSILIZATION PROCESSES ON THE FUNDAMENTALS OF RADIOMETRIC DATING

Véronique MICHEL, *Institut de Paléontologie Humaine, France*

Activation Analysis Special Lecture

Monday, October 2
(15:40 — 16:40)

1S02 FUNDAMENTAL ASPECTS, INSTALLATION AND PRACTICAL APPLICATIONS OF k_0-STANDARDIZED NEUTRON ACTIVATION ANALYSIS

Frans De CORTE, *Institute for Nuclear Sciences, University of Gent, Belgium*

Lecture Session

Monday, October 2
[Nuclear Fission I](9:40 — 11:00)

1A01 ANGULAR MOMENTUM OF FISSION PRODUCTS IN ^{232}Th + p SYSTEM II

Ken-ichirou YASUDA, Daisuke SAITO, Rie SAITO, Shin-ichi GOTO, Hisaaki KUDO, Tetsuo HASHIMOTO, *Faculty of Science, Niigata University,*
Manabu FUJIOKA, Tsutomu SHINOZUKA, Masahiro FUJITA, Ai WATANABE, *Cyclotron Radioisotope Center, Tohoku University*

1A02 FISSION OF p + ^{232}Th SYSTEM 1 — FRAGMENT MASS AND KINETIC ENERGY DISTRIBUTIONS —

Masashi TANIKAWA, *School of Science, University of Tokyo,*
Ichirou NISHINAKA, Yasuji OURA, Yuichirou NAGAME, Kazuaki TSUKADA, Shin-ichi ICHIKAWA, Hiroshi IKEZOE, *Japan Atomic Energy Research Institute,*
Yuliang ZHAO, Keisuke SUEKI, Hiromichi NAKAHARA, *Faculty of Science, Tokyo Metroporitan University,*
Hisaaki KUDO, *Faculty of Science, Niigata University,*
Yasunori HAMAJIMA, *Faculty of Science, Kanazawa University,*
Tsutomu OHTSUKI, *Laboratory of Nuclear Science, Tohoku University,*
Kouichi TAKAMIYA, *Faculty of Science, Osaka University,*
Yong H. Chung, *Hallym University*

1A03 FISSION OF p + ^{232}Th SYSTEM II — NEUTRON EMISSION FROM FISSION FRAGMENTS —

Ichirou NISHINAKA, Yuichiro NAGAME, Kazuaki TSUKADA, Yasuji OURA, Shin-ichi ICHIKAWA, Hiroshi IKEZOE, *Japan Atomic Energy Research Institute,*
Hiromichi NAKAHARA, Keisuke SUEKI, Yuliang ZHAO, *Faculty of Science, Tokyo Metropolitan University,*
Hisaaki KUDO, *Faculty of Science, Niigata University,*
Yasunori HAMAJIMA, *Faculty of Science, Kanazawa University,*
Tsutomu OHTSUKI, *Laboratory of Nuclear Science, Tohoku University,*
Masashi TANIKAWA, *School of Science, University of Tokyo,*
Kouichi TAKAMIYA, *Faculty of Science, Osaka University,*
Yong H. Chung, *Hallym University*

1A04 DIFFERENCE OF MASS DIVISION PHENOMENA IN FISSION INDUCED BY ^{7}Li + ^{232}Th AND p + ^{238}U REACTIONS

Yuliang ZHAO, Keisuke SUEKI, Hiromichi NAKAHARA, *Faculty of Science, Tokyo Metropolitan University,*
Masashi TANIKAWA, *School of Science, University of Tokyo,*
Yuichiro NAGAME, Ichirou NISHINAKA, Kazuaki TSUKADA, *Japan Atomic Energy Research Institute*

Monday, October 2
[Nuclear Fission II](11:00 — 12:10)

1A05 TOF MEASUREMENT FOR THERMAL-NEUTRON-INDUCED FISSION OF ^{235}U

Koichi TAKAMIYA, Takakazu INOUE, Akihiko YOKOYAMA, Naruto TAKAHASHI, Tadashi SAITO, Hiroshi BABA, *Faculty of Science, Osaka University,*
Yoshihiro NAKAGOME, *Kyoto University Research Reactor Institute*

1A06 THE STUDIES ON SPONTANEOUS FISSION OF ^{252}Cf BY A TOF MEASUREMENT

Takakazu INOUE, Koichi TAKAMIYA, Akihiko YOKOYAMA, Naruto TAKAHASHI, Tadashi SAITO, Hiroshi BABA, *Faculty of Science, Osaka University*

1A07 FAST FISSION OBSERVED IN THE (^{238}U + ^{12}C) REACTION SYSTEM

Hiroshi BABA, Ming-Chin DUH, Naruto TAKAHASHI, Akihiko YOKOYAMA, Tadashi SAITO, *Faculty of Science, Osaka University*

Monday, October 2
[Nuclear Reaction & Decay I](14:20 — 15:20)

1A08 SYSTEMATICS OF PHOTOPION REACTION ON MEDIUM AND HEAVY NUCLEI

Hiromitsu HABA, Hiroshi MATSUMURA, Kouichi YOSHIDA, Yutaka MIYAMOTO, Koh SAKAMOTO, *Faculty of Science and Graduate School of Natural Science, Kanazawa University,*

Yasuji OURA, *Japan Atomic Energy Research Institute,*
Seiichi SHIBATA, *Institute for Nuclear Study, University of Tokyo,*
Ichirou FUJIWARA, *School of Economics, Otemongakuin University,*
Michiaki FURUKAWA, *Faculty of Science, Nagoya University*

1A09 LOW-LYING STATES OF Ce NUCLEI FED BY THE DECAY OF ^{125,126,127}Pr

Akihiko OSA, Mitsuo KOIZUMI, Toshiaki SEKINE, Sin-ichi ICHIKAWA, *Department of Radioisotopes, Japan Atomic Energy Research Institute,*
Masato ASAI, Yasuaki KOJIMA, Hiroshi YAMAMOTO, Kiyoshi KAWADE, *School of Engineering, Nagoya University*

1A10 IDENTIFICATION OF A NEW ISOTOPE ^{166}Tb

Kazuaki TSUKADA, Shin-ichi ICHIKAWA, Akihiko OSA, Yuichiro NAGAME, Nobuo SHINOHARA, Hideaki IIMURA, Ichiro NISHINAKA, Yuichi HATSUKAWA, *Department of Radioisotopes, Japan Atomic Energy Research Institute,*
Masato ASAI, *Department of Nuclear Engineering, Nagoya University,*
Yasuaki KOJIMA, Michihiro SHIBATA, Hiroshi YAMAMOTO, Kiyoshi KAWADE, *Department of Energy Engineering and Science, Nagoya University*

Monday, October 2
[Nuclear Reaction & Decay II](15:40 — 16:20)

1A11 STUDY OF THE EXCITATION FUNCTIONS OF ^{238}U(^{7,6}Li, xn)$^{245,244-x}$Am REACTIONS

Yuichi HATSUKAWA, Kentaro HATA, Kazuaki TSUKADA, Nobuo SHINOHARA, Yasuji OURA, Yuichiro NAGAME, Ichiro NISHINAKA, Shin-ichi ICHIKAWA, *Department of Radioisotopes, Japan Atomic Energy Research Institute*

1A12 SEARCH FOR ^{236}Am (2)

Yasuji OURA, Kazuaki TSUKADA, Ichiro NISHINAKA, Yuichi HATSUKAWA, Nobuo SHINOHARA, Shin-ichi ICHIKAWA, Kentaro HATA, Yuichiro NAGAME, *Department of Radioisotopes, Japan Atomic Energy Research Institute*

Monday, October 2
[Nuclear Reaction & Decay III](16:20 — 17:20)

1A13 ANGULAR DISTRIBUTION OF FISSION FRAGMENTS IN THE HEAVY-ION REACTION OF GOLD IN THE INTERMEDIATE ENERGY RANGE

Atsushi SHINOHARA, Shigetoshi KIRYU, Toshiharu MUROYAMA, Junji KURACHI, Michiaki FURUKAWA, *Faculty of Science, Nagoya University,*
Sadao KOJIMA, *Aichi Medical University,*
Kazuhiko MUKAI, Tadashi SAITO, Akihiko YOKOYAMA, *Faculty of Science, Osaka University,*
Yoshitaka OHKUBO, Fumitoshi AMBE, *RIKEN*

1A14 MEASUREMENT OF THE EXCITATION FUNCTION FOR THE $^{63}Cu(n, p)^{63}Ni$

Seiichi SHIBATA, Tokushi SHIBATA, Mineo IMAMURA, *Institute for Nuclear Study, University of Tokyo,*
Yoshitomo UWAMINO, *RIKEN,*
Norio NOGAWA, *Radioisotope Centre, University of Tokyo,*
Mamoru BABA, Shin IWASAKI, Shigeo MATSUYAMA, *Faculty of Engineering, Tohoku University*

1A15 MEASUREMENTS OF THE ^{36}Cl PRODUCTION CROSS SECTIONS FROM K, Ca – IMPLICATION TO THE SOLAR-COSMIC-RAY INTENSITY IN THE PAST 400 Ky –

Mineo IMAMURA, Sei-ichi SHIBATA, *Institute for Nuclear Study, University of Tokyo,*
Kunihiko NISHIIZUMI, *UC Berkeley,*
Robert REEDY, *Los Alamos National Laboratory*

Nuclear Chemistry Group Meeting (18:00 — 20:00)

Monday, October 2
[Multitracer I](9:40 — 11:00)

1B01 PHYSIOLOGICAL AND BIOCHEMICAL INVENSTIGATIONS OF BIOTRACE ELEMENTS IN VARIOUS DISEASE MODEL ANIMALS

Shuichi ENOMOTO, Bin LIU, Haruka MAEDA, Shizuko AMBE, Fumitoshi AMBE, *The Institute of Physical and Chemical Research(RIKEN)*

1B02 UTILIZATION OF A RADIOACTIVE MULTITRACER IN MEDICINE AND BIOLOGY: ON THE *IN-VIVO* INTERACTION BETWEEN HEAVY METALS AND SELENIUM

Ryohei AMANO, Shigeo OISHI, Miki IHYOU, Atsushi KAKUNAGA, Satiyo YOSHIDA, *School of Allied Medical Sciences, Kanazawa University,*
Shuichi ENOMOTO, Fumitoshi AMBE, *The Institute of Physical and Chemical Research (RIKEN)*

1B03 UTILIZATION OF A RADIOACTIVE MULTITRACER IN MEDICINE AND BIOLOGY: SIGNIFICANCE OF ITS APPLICATION TO *LEC* RAT EXPERIMENT

Shigeo OISHI, Ryohei AMANO, Katsumi ISHIMOTO, Miho NARUSE, Atsushi ANDO, *School of Allied Medical Professions, Kanazawa University,*
Shuichi ENOMOTO, Fumitoshi AMBE, *The Institute of Physical and Chemical Research (RIKEN)*

1B04 DISTRIBUTION OF TRACE ELEMENTS IN VITAMIN D OVERLOADED RATS USING THE MULTITRACER TECHNIQUE

Rieko HIRUNUMA, Kazutoyo ENDO, *Showa College of Pharmaceutical Sciences,*
Makoto YANAGA, *The Jikei University School of Medicine,*
Shuichi ENOMOTO, Bin LIU, Shizoko AMBE, Fumitoshi AMBE, *The Institute of Physical and Chemical Research(RIKEN)*

Monday, October 2
[Multitracer II](11:10 — 12:10)

1B05 APPLICATION OF THE MULTITRACER TECHNIQUE FOR A STUDY ON DISTRIBUTION OF TRACE ELEMENTS IN *LEC* RATS

Makoto YANAGA, Machiko TOZAWA, *Department of Chemistry, The Jikei University School of Medicine,*
Rieko ENDO, Hiromichi NAKAHARA, *Faculty of Science, Tokyo Metropolitan University,*
Rieko HIRUNUMA, Kazutoyo ENDO, *Faculty of Pharmacology, Showa College of Pharmaceutical Sciences,*
Shuichi ENOMOTO, Bin LIU, Shizuko AMBE, Fumitoshi AMBE, *The Institute of Physical and Chemical Research (RIKEN)*

1B06 BIODISTRIBUTION STUDY OF ANTIBODIES LABELED WITH MULTITRACER IN MICE

Bin LIU, Shuichi ENOMOTO, Shizuko AMBE, Fumitoshi AMBE, *The Institute of Physical and Chemical Research (RIKEN)*

1B07 MEASUREMENT OF POTASSIUM, RUBIDIUM, AND CESIUM INFLUX RATE INTO ERYTHROCYTE USING MULTITRACER TECHNIQUE

Nobuhiko ITO, Iwao KUNUGIYAMA, Akira IWATSUKI, Mayu ITO, *Kitasato University School of Veterinary Medicine and Animal Sciences,*
Shizuko AMBE, Shuichi ENOMOTO, Fumitoshi AMBE, *The Institute of Physical and Chemical Research (RIKEN)*

Monday, October 2
[Positron Annihilation](14:20 — 15:20)

1B08 POSITRONIUM AS THE PROBE OF SPACE STRUCTURES IN SOLID COMPOUNDS AT LOW TEMPERATURE

Yasuo ITO, *RCNST, University of Tokyo,*
Masaru SHIOTANI, *Faculty of Engineering, Hiroshima University*

1B09 POSITRON ANNIHILATION AND POLYMERIZATION OF EPOXY RESINS (II)

Takenori SUZUKI, Yuichi OKI, Masaharu NUMAJIRI, Taichi MIURA, Kenjiro KONDO, *National Laboratory for High Energy Physics,*
Nagayasu OSHIMA, *The Graduate University for Advanced Studies,*
Yasuo ITO, *RCNST, The University of Tokyo*

1B10 CHARACTERISTICS POLYSTYLENE AT LOW TEMPERATURE STUDIED BY POSITRON ANNIHILATION

Nagayasu OSHIMA *The Graduate University for Advanced Studies,*
Takenori SUZUKI, Yuichi OKI, Masaharu NUMAJIRI, Taichi MIURA, Kenjiro KONDO, *National Laboratory for High Energy Physics,*
Yasuo ITO, *RCNST, The University of Tokyo*

Monday, October 2
[Magnetism](15:40 — 16:40)

1B11 *TDPAC* STUDIES ON METAL-COMPLEX FERRIMAGNETS

Yoshitaka OHKUBO, Shizuko AMBE, Takuya OKADA, Jin NAKAMURA, Fumitoshi AMBE, *The Institute of Physical and Chemical Research (RIKEN),*
Kichizo ASAI, Atsuro YONEDA, Yasuo YANAGIDA, *The University of Electro-Communications,*
Yoichi KAWASE, Shin-ichi UEHARA, *Research Reactor Institute, Kyoto University*

1B12 TIME DIFFERENTIAL PERTURBED ANGULAR CORRELATION OF ^{117}In($\leftarrow^{117}$Cd) γ-RAYS IN $BaRu_{2/3}M_{1/3}O_3$ (M=Ca, Cd, Sr)

Yasuo YANAGIDA, Kichizo ASAI, *Dept.Appl.Phys.Chem., University of Electro-Communications,*
Jin NAKAMURA, Yoshitaka OHKUBO, Takuya OKADA, Shizuko AMBE, Fumitoshi AMBE, *The Institute of Physical and Chemical Research(RIKEN),*
Yoichi KAWASE, Shin-ichi UEHARA, *Research Reactor Institute, Kyoto University*

1B13 ^{61}Ni MÖSSBAUER SPECTROSCOPY OF Ni OXIDES WITH SPINEL STRUCTURE

Yoshio KOBAYASHI, Takuya OKADA, Fumitoshi AMBE, *The Institute of Physical and Chemical Research (RIKEN),*
Yoshihiko NORO, *Hitachi Multimedia System R&D,*
Hideaki KITAZAWA, *National Research Institute for Metals*

Monday, October 2
[Muon Chemistry · In–Beam Mössbauer](16:40 — 17:20)

1B14 CHEMICAL FORM OF DIAMAGNETIC MUON IN METAL ACETYLACETONATES

M. Kenya KUBO, Toshiyuki ANEGAWA, Hideaki KAGETSU, Noriko SHIOYASU, Takeshi TOMINAGA, *School of Science, University of Tokyo,*
Kusuo NISHIYAMA, Kanetada NAGAMINE, *Meson Science Laboratory, University of Tokyo*

1B15 DEVELOPMENT OF IN-BEAM MÖSSBAUER SPECTROSCOPY AT *RARF*

Yoshio KOBAYASHI, Yasushi WATANABE, Atsushi YOSHIDA, Takashi NAKAMURA, Masayoshi ISHIHARA, Naoto INABA, Masayuki KASE, Akira GOTO, Yasushige YANO, Fumitoshi AMBE, *The Institute of Physical and Chemical Research (RIKEN),*
Yutaka YOSHIDA, H. HÄßLEIN, Ken-ichi YUKIHIRA, Kazuo HAYAKAWA, *Shizuoka Institute of Science and Technology*

Hot Atom Chemistry Group Meeting (18:00 — 20:00)

Monday, October 2
[Separation ·Determination](9:40 — 11:00)

1C01 SOLVENT EXTRACTION BEHAVIOR OF RADIOHALOGENS

Naruto TAKAHASHI, Yukiko TAMIYA, Hiroshi BABA, *Faculty of Science, Osaka University*

1C02 SUBSTOICHIOMETRIC EXTRACTION OF MOLYBDENUM WITH VARIOUS ORGANIC REAGENTS

Toshio SHIGEMATSU, *NTT Interdisciplinary Laboratories*

1C03 DETERMINATION OF Po-210 IN PHOSPHORIC ACID

Takashi NAKANISHI, Mitsuru HIROSE, *Faculty of Science, Kanazawa University,*
Hiroyuki FUKUDA, *Fujitsu Laboratories Ltd.*

1C04 GAS PHASE REACTION OF $La(DPM)_3$ II

Keiko TAMURA, Yasutake FURUKOSHI, Yohko TOSOKA, Hisaaki KUDO, Tetsuo HASHIMOTO, *Faculty of Science, Niigata University*

Monday, October 2
[Activation Analysis I](11:00 — 12:00)

1C05 STUDIES ON FUEL FAILURE DETECTION BY MEASURING THE DAUGHTER RADIONUCLIDES OF F.P.-ORIGINATING RARE GASES CONTAINED IN A COOLANT WATER III.

Tatsuo MATSUURA, Shu A. HAYASHI, Kenji TOMURA, Susumu HARASAWA, *Institute for Atomic Energy, Rikkyo University*

1C06 DETERMINATION OF MULTIELEMENTS IN ENVIRONMENTAL REFERENCE MATERIAL "HIZIKI" BY INSTRUMENTAL NEUTRON ACTIVATION ANALYSIS

Shogo SUZUKI, Yukiko OKADA, Shoji HIRAI, *Atomic Energy Research Laboratory, Musashi Institute of Technology*

1C07 TRACE ELEMENT ANALYSIS OF COMMONLY CONSUMED FOOD SPICES BY NEUTRON ACTIVATION ANALYSIS

J. H. ZAIDI, Yutaka MIYAMOTO, Koh SAKAMOTO, *Faculty of Science, Kanazawa University*

Monday, October 2
[Activation Analysis II](14:20 — 15:20)

1C08 ACTIVATION ANALYSIS STUDY ON DISTRIBUTION OF TRACE ELEMENTS IN FERNS

Takuo OZAKI, Yoshitaka MINAI, Takeshi TOMINAGA, *Department of Chemistry, School of Science, University of Tokyo,*
Shuichi ENOMOTO, Shizuko AMBE, Fumitoshi AMBE, *Institute of Physical and Chemical Research (RIKEN)*

1C09 DETERMINATION OF TRACE ELEMENTS IN ORGANS OF RATS BY *PIXE* AND NEUTRON ACTIVATION ANALYSIS

Makoto YANAGA, Machiko TOZAWA, *Department of Chemistry, the Jikei University School of Medicine,*
Rie YAMAMOTO, Rieko HIRUNUMA, Kazutoyo ENDO, *Faculty of Pharmacology, Showa College of Pharmaceutical Sciences,*
Shuichi ENOMOTO, Fumitoshi AMBE, *The Institute of Physical and Chemical Research (RIKEN),*
Shoji FUTATSUGAWA, *Nishina Memorial Cyclotron Center, Japan Radioisotope Association*

1C10 NEUTRON ACTIVATION ANALYSIS IN THE CENTRAL NERVOUS SYSTEM TISSUES OF NEUROLOGICAL DISEASES AND AGED RATS MAINTAINED ON MINERALLY UNBALANCED DIETS

Masayuki YASUI, Kiichiro OTA, *Division of Neurological Diseases and Department of Laboratory Med., Wakayama Medical College,*
Kazuhisa SASAJIMA, *Research Reactor Institute, Kyoto University*

Monday, October 2
[Activation Analysis III](16:40 — 17:40)

1C11 STANDARDIZATION OF METHODS FOR ANALYZING ULTRA-TRACE ELEMENTS ON SILICON WAFER SURFACES BY USING NEUTRON ACTIVATION ANALYSIS

Masaaki KATOH, Hiroki YONEZAWA, Norikuni YABUMOTO, *NTT Interdisciplinary Research Laboratories,*
Yasuo KUNII, *NTT LSI Laboratories,*
Makiko TANAKA, *NTT Advanced Technology Corp.*

1C12 NON-DESTRUCTIVE DETERMINATION OF THE MAJOR ELEMENTS WITHIN A LARGE SAMPLE BY PROMPT GAMMA-RAY NEUTRON ACTIVATION ANALYSIS (*PGAA*)

Wataru SATO, Keisuke SUEKI, Hiromichi NAKAHARA, *Faculty of Science, Tokyo Metropolitan University,*
Hirofumi SAWAHATA, *Research Center for Nuclear Science and Technology, University of Tokyo,*
Chushiro YONEZAWA, *Japan Atomic Energy Research Institute,*
Takeshi TOMIZAWA, *Faculty of Literature, Keio University*

1C13 REACTOR NEUTRON INDUCED PROMPT GAMMA–RAY ANALYSIS OF ANCIENT GLASSES

Takeshi TOMIZAWA, *Faculty of Literature, Keio University*
Chushiro YONEZAWA, *Japan Atomic Energy Research Institute,*
Yoshitaka MINAI, Takeshi TOMINAGA, *School of Science, the University of Tokyo*

Activation Analysis Group Meeting (18:00 — 20:00)

Tuesday, October 3
[Mesic Chemistry](9:00 — 9:40)

2A01 CAPTURE PROCESS OF NEGATIVE PIONS IN AMMONIUM HALIDES

Chihiro MURATA, Atsushi SHINOHARA, Toshiharu MUROYAMA, Junichiro SINTAI, Michiaki FURUKAWA *Faculty of Science, Nagoya University,*
Taichi MIURA, *National Laboratry for High Energy Physics (KEK),*
Tadashi SAITO, *Faculty of Science, Osaka University,*
Nobutsugu IMANISHI, *Faculty of Engineering, Kyoto University,*
Ichirou FUJIWARA, *School of Economics, Otemongakuin University*

2A02 MODIFIED LARGE MESOMOLECULAR MODEL INCLUDING PION TRANSFER PROCESS — THE APPLICATION TO BINARY SYSTEMS OF LIQUID ORGANIC COMPOUNDS —

Toshiharu MUROYAMA, Atsushi SHINOHARA, Chihiro MURATA, Michiaki FURUKAWA, *Faculty of Science, Nagoya University,*
Tadashi SAITO, Akihiko YOKOYAMA, *Faculty of Science, Osaka University,*
Sadao KOJIMA, *Radio Isotope Research Center, Aichi Medical University,*
Hisakazu MURAKMATSU, *Faculty of Education, Shinshu University,*
Taichi MIURA, *National Laboratry for High Energy Physics*

Tuesday, October 3
[Fullerene Chemistry](9:40 — 10:40)

2A03 PRODUCTION OF RADIOACTIVE FULLERENES USING NUCLEAR REACTIONS (I)

Kazuyoshi MASUMOTO, Tsutomu OHTSUKI, *Laboratory of Nuclear Science, Tohoku University,*
Keisuke SUEKI, Koh-ichi KIKUCHI, *Faculty of Science, Tokyo Metropolitan University,*
Satoaki MITSUGASHIRA, *Research of Material Science, Tohoku University*

2A04 PRODUCTION OF RADIOACTIVE FULLERENES USING NUCLEAR REACTIONS (II)

Tsutomu OHTSUKI, Kazuyoshi MASUMOTO, *Laboratory of Nuclear Science, Tohoku University,*
Keisuke SUEKI, Koh-ichi KIKUCHI, *Faculty of Science, Tokyo Metropolitan University*

2A05 *PAC* STUDY ON ^{140}Ce ARISING FROM ^{140}La IN METALLOFULLERENE (II)

Keisuke SUEKI, Koh-ichi KIKUCHI, Hiromichi NAKAHARA, *Faculty of Science, Tokyo Metropolitan University,*
Yoshitaka OHKUBO, Fumitoshi AMBE, *The Institute of Physical and Chemical Research (RIKEN),*
Kenji TOMURA, *Institute of Atmic Energy, Rikkyo University*

Tuesday, October 3
[Solution Chemistry of RI](11:00 — 12:00)

2A06 STUDY ON THE STABILITY CONSTANTS BETWEEN Nd^{3+} and F^- IN MIXED (CH_3OH + H_2O) SOLVENTS

Toshifumi KATOH, Hideo SUGANUMA, Takashi OMORI, *Faculty of Science, Shizuoka University,*
Isamu SATOH, *Institute for Material Research, Tohoku University*

2A07 INTERACTION BETWEEN Ln^{3+} (Ln=Eu and Nd) and Cl^- IN MIXED (CH_3OH + H_2O) SOLVENTS

Mitsuhiro NAKAMURA, Hideo SUGANUMA, Takashi OMORI, *Faculty of Science, Shizuoka University,*
Isamu SATOH, *Institute for Material Research, Tohoku University*

2A08 STUDY ON THE STABILITY CONSTANTS BETWEEN Ln^{3+}(Nd, Eu, and Tm) and F^- IN MIXED (DMSO + H_2O) SOLVENTS

Hideo SUGANUMA, Toshifumi KATOH, Akifumi SUZUKI, Takashi OMORI, *Faculty of Science, Shizuoka University,*
Isamu SATOH, *Institute for Material Research, Tohoku University*

Tuesday, October 3
[Radiation Effect](9:00 — 10:00)

2B01 THE EFFECT OF ^{60}Co–γ–IRRADIATION ON POTASSIUM TETRACHLOROPLATINUM(II) IN NH_4Cl SOLUTION : ENHANCED CELL KILLING EFFECT

Yoshiko TANAKA, Teruie SUMINO, Kenichi KAWAI, Jitsuya TAKADA, Mitsuhiko AKABOSHI, *Research Reactor Institute, Kyoto University*

2B02 PROTECTION MECHANISM OF GREEN TEA CATECHIN ON DNA STLAND BREAKS INDUCED BY TRITIATED WATER

Hiromu KUROSAKI, Hiroe YOSHIOKA, Kunihiko HASEGAWA, *Radiochemistry Research Laboratory, Faculty of Science, Shizuoka University,*
Hisashi YOSHIOKA, *Division of Environmental Health Sciences, Graduate School of University of Shizuoka*

2B03 PROTECTION EFFECT AND THE MECHANISM OF CATECHIN ON DNA STRAND BREAKS INDUCED BY TRANSITION ELEMENT - REDOX BEHAVIOR OF IRON CITRATE LABELED WITH ^{59}Fe TRACER -

Hiroe YOSHIOKA, Kunihiko HASEGWA, *Radiochemistry Research Laboratory, Faculty of Science, Shizuoka University,*
Hisashi YOSHIOKA, *Division of Environmental Health Sciences, Graduate School of University of Shizuoka*

Tuesday, October 3
[Hot Atom Chemistry](10:00 — 10:50)

2B04 SOLID STATE CHEMICAL REACTIONS OF RECOIL ATOMS IN METALLOCENE DERIVATIVES (3) : A COMPARISON OF HOT ATOM REACTIONS WITH RECOIL IMPLANTATION REACTIONS

Iwao YAMAGUCHI, Tsutomu SEKINE, Hiroshi KUDO, *Graduate School of Science, Tohoku University*

2B05 VARIOUS TENDENCIES IN THE COMPLEX FORMATION IN THE RECOIL BEHAVIOR OF CENTRAL METAL ATOMS IN THE SOLID SYSTEM OF WATER-SOLUBLE METALLOPORPHYRIN ION ASSOCIATES

Hitoshi SHOJI, *Department of Chemistry, University of Tsukuba*

Tuesday, October 3
[Mössbauer Chemistry I](9:00 — 10:00)

2B06 MÖSSBAUER SPECTROSCOPIC STUDIES OF NEPTUNIUM COMPOUNDS (No.3) — DESIGN OF Am SOURCE AND NpO_2 ABSORBER AND THEIR CAPABILITIES —

Masakatsu SAEKI, Masami NAKADA, Nobuyuki M. MASAKI, *Advanced Science Research Center, JAERI,*
Tomohiro YOSHINAGA, *Faculty of Science, Toho University*

2B07 MÖSSBAUER SPECTROSCOPIC STUDIES OF NEPTUNIUM COMPOUNDS (No.4) — CONFIRMATION OF MEASUREMENT AND APPLICATION TO $U_{0.8}Np_{0.2}O_2$ —

Masami NAKADA, Nobuyuki M. MASAKI, Masakatsu SAEKI, *Advanced Science Research Center, JAERI,*
Toshiyuki YAMASHITA, *Department of Chemistry and Fuel Research, JAERI,*
Tomohiro YOSHINAGA, *Faculty of Science, Toho University*

2B08 MÖSSBAUER SPECTROSCOPIC STUDY OF Eu-Nb MIXED OXIDE — ON THE COMPOUND OF $Eu_2Nb_2O_3$ —

Nobuyuki M. MASAKI, Masami NAKADA, Masakatsu SAEKI, Akio NAKAMURA, *Japan Atomic Energy Research Institute*

Tuesday, October 3
[Environmental Radioactivity I](9:00 — 10:00)

2C01 BEHAVIOR OF ELEMENTS IN SALINE SOILS OF TURPAN BASIN, CHINA

Noriko SHINJO, Hiroaki HARAKAWA, Yuko SAITO, Kan KIMURA, *College of Science and Engineering, Aoyama Gakuin University,*
Sadayo YABUKI, Akihiko OKADA, *The Institute of Physical and Chemical Research (RIKEN)*

2C02 VERTICAL DISTRIBUTION OF CHEMICAL ELEMENTS AND DEPOSITION AGE BY ^{210}Pb AND ^{137}Cs DATING IN THE SEDIMENTS OF LAKE BIWA

Sadao KOJIMA, *Aichi Medical University,*
Toshio NAKAMURA, *Dating and Materials Research Center, Nagoya University,*
Kiichiro YOKOTA, *Lake Biwa Research Institute,*
Kyoko SOGA, Michiaki FURUKAWA, *Faculty of Science, Nagoya University*

2C03 STUDY ON FALL-OUT RADIOACTIVITIES IN MOUNTAINOUS AREA

Takayuki ONO, Sadaaki FURUTA, Yuji NAKAJIMA, *Ningyo-toge Works, Power Reactor and Nuclear Fuel Development Corporation*

Tuesday, October 3
[Environmental Radioactivity II](10:00 — 10:40)

2C04 TRITIUM CYCLE IN FOREST SOIL

Hideki KAKIUCHI, Noriyuki MOMOSHIMA, Yonezo MAEDA, *Faculty of Science, Kyusyu University,*
Tomio OKAI, *Faculty of Engineering, Kyusyu University*

2C05 Tc-99 CONCENTRATIONS IN SURFACE SEAWATER AND LITTER/HUMUS IN FOREST SOIL

Muhamad SAYAD, Noriyuki MOMOSHIMA, Hideki KAKIUCHI, Yonezo MAEDA, *Faculty of Science, Kyusyu University*

Tuesday, October 3
[Environmental Radiactivity III](11:00 — 12:00)

2C06 RADIOACTIVITY AND CHEMICAL COMPOSITION IN HOKUTOLITE FROM HOKUTO HOT SPRING, TAIWAN

Junichi NITA, Noriyuki MOMOSHIMA, Yonezo MAEDA, *Faculty of Science, Kyusyu University,*
Shinji SUGIHARA, *Radioisotope Center, Kyusyu University,*
Isamu SHINNO, *Graduate School of Social and Cultural Studies, Kyusyu University,*
Nobuaki MATSUOKA, *Kyushu Evaluation Association,*
Chin Wang HUANG, *Chung Yuan Christian University*

2C07 ACCUMULATION AND MIGRATION OF RADIOACTIVE DEPOSITION IN A FOREST

Tomoko BABA, Shinji SUGIHARA, Yonezo MAEDA, *Faculty of Science, Kyusyu University,*
Youji INOKURA, *Faculty of Agriculture, Kyusyu University,*
Susumu OSAKI, *Radioisotope Center, Kyusyu University*

2C08 LOCAL RESUSPENSION OF FALLOUT-DERIVED ^{137}Cs

Yoichi ISHIKAWA, Takeshi OGAWA, Kyoji SAGA, Yasuaki MORI, *Environmental Radioactivity Research Institution, Miyagi,*
Tsutomu SEKINE, *Graduate School of Science, Tohoku University,*
Kenji YOSHIHARA, *Tohoku Culture School*

Wednesday, October 4
[Tc, Re Chemistry I](9:00 — 10:20)

3A01 PREPARATION OF ^{186}Re-(METHANE-1-HYDROXY-1,1-DIPHOSPHONATE)

Norio NOGAWA, Yoshihiro MAKIDE, Naotake MORIKAWA, *Radioisotope Center, The University of Tokyo,*
Kunio OOHASHI, Kaori MIYAZAWA, Shizuka MOMOSE, *Faculty of Pharmaceutical Sciences, Chiba University*

3A02 FORMATION REACTION OF RHENIUM-FURILDIOXIME COMPLEX

Kiyoshi IKEDA, Hideo SUGANUMA, Takashi OMORI, *Faculty of Science, Shizuoka University*

3A03 A NEW METHOD FOR THE SPECTROPHOTOMETRIC DETERMINATION OF PERTECHNETATE WITH TRIS(1,10-PHENANTHROLINE)IRON(II) (3)

Kazu NAGASAKI, Hideo SUGANUMA, Takashi OMORI, *Faculty of Science, Shizuoka University*

3A04 SOLVENT EXTRACTION BEHAVIOR OF TETRACHLORONITRIDOTECHNETATE(IV) ION WITH TETRAPHENILARSONIUM CHLORIDE

Kazue ASAHINA, Hideo SUGANUMA, Takashi OMORI, *Faculty of Science, Shizuoka University*

Wednesday, October 4
[Tc, Re Chemistry II](10:40 — 12:00)

3A05 SYNTHESIS OF NITRIDOTECHNETIUM COMPLEXES WITH TETRADENTATE SCHIFF BASE LIGAND AND THE REDUCTION PROCESS OF CENTRAL METAL

Tsutomu TAKAYAMA, Yuko KANI, Tsutomu SEKINE, Hiroshi KUDO, *Department of Chemistry, Graduate School of Science, Tohoku University*

3A06 SYNTHESIS AND STRUCTURAL DETERMINATION OF NITRIDOTECHNETIUM COMPLEX WITH AMINE OXIME LIGAND(PnAO)

Yuko KANI, Tsutomu TAKAYAMA, Shinji INOMATA, Tsutomu SEKINE, Hiroshi KUDO, *Graduate School of Science, Tohoku University*

3A07 SPECIATION OF TECHNETIUM IN AQUEOUS MEDIA : ION PAIR EXTRACTION OF PERTECHNETATE WITH FERROIN AND ITS SENSITIVE DETERMINATION BY LASER INDUCED PHOTOACOUSTIC SPECTROSCOPY

Saiko NAITO, Tsutomu SEKINE, Hiroshi KUDO, *Graduate School of Science, Tohoku University,*
Takashi OMORI, *Faculty of Science, Shizuoka University*

3A08 SOLVENT EXTRACTION OF TECHNETIUM IN URINE WITH TBP(2)

Satoshi WATANABE, Kazuyuki HASHIMOTO, *Japane Atomic Energy Research Institute*

Wednesday, October 4
[Adsorption I](13:00 — 14:00)

3A09 SORPTION OF AMERICIUM(III) AND LANTHANIDES(III) ONTO Na-MONTMORILLONITE

Shinya NAGASAKI, Satoru TANAKA, *Department of Quantum Engineering and Systems Science, The University of Tokyo*

3A10 STUDY OF ADSORPTION OF METAL IONS ON α–Fe_2O_3 USING A MULTITRACER

Maki IWATA, Yoshihide IIJIMA, *Toho Universty,*
Shizuko AMBE, Masako IWAMOTO, Haruka MAEDA, Fumitoshi AMBE, *The Institute of Physical and Chemical Research(RIKEN)*

3A11 MULTITRACER STUDY ON THE ION EXCHANGE ADSORPTION OF VARIOUS ELEMENTS ON SUPERACID RESIN *NAFION* AND ITS ANALYTICAL APPLICATION

Akiko SEKIGUCHI, Naoya ITO, Naohisa FURUSATO, Yuko SAITO, Kan KIMURA, *Aoyama Gakuin University,*
Haruka MAEDA, Shizuko AMBE, Fumitoshi AMBE, *The Institute of Physical and Chemical Research(RIKEN)*

Wednesday, October 4
[Adsorption II · Solubility](14:00 — 14:50)

3A12 A STUDY OF CHARACTERISTIC OF CARBON DIOXIDE ADSORPTION ON METAL SURFACE WITH USE OF C-14 AS A TRACER

Takeyoshi ASANO, Setsuko SHIBATA, Eiko KAWANO, Syunichi KAWAMURA, *Research Institute for Advanced Science and Technology, University of Osaka Prefecture,*
Isao NORITAKE, Katsuhiko UEDA, Teiichiro SAMESHIMA, *Central Research Laboratory of NEOS Co. Ltd*

3A13 Sm(III) HYDROLYSIS CONSTANTS AND SOLUBILITY PRODUCT OF SAMARIUM HYDROXIDE — AVAILABILITY OF THE UNIFIED THEORY —

Sanae SHIBUTANI, Tomoki SHIBUTANI, Hideki YOSHIKAWA, Mikazu YUI, *Power Reactor and Nuclear Fuel Development Corporation, Tokai Works*

Wednesday, October 4
[Structure of Complexes](15:00 — 16:00)

3A14 STRUCTURAL STUDY OF LANTHANIDE COMPLEXES IN DIAMIDE EXTRACTION SYSTEM

Hirokazu NARITA, Kan KIMURA, *College of Science and Engineering, Aoyama Gakuin University,*
Tsuyoshi YAITA, Shoichi TACHIMORI, *Japan Atomic Energy Reseach Institute*

3A15 SYNERGISTIC EFFECT OF DICARBOLLIDE ON THE EXTRACTION OF LANTHANIDES(III) AND ACTINIDES(III) WITH DIAMIDE FROM NITRIC ACID SOLUTION

Tsuyoshi YAITA, Shoichi TACHIMORI, *Japan Atomic Energy Reseach Institute*

3A16 LASER-INDUCED LUMINESCENCE STUDY ON THE DISSOLVED STATE OF EUROPIUM(III) IN THE POLYCARBOXYLATE COMPLEXES IN AQUEOUS SOLUTIONS

Yoshio TAKAHASHI, Yoshitaka MINAI, Takeshi TOMINAGA, *The University of Tokyo,*
Takaumi KIMURA, Yoshiharu KATO, *Japan Atomic Energy Reseach Institute*

Wednesday, October 4
[Isotope Exchange](16:00 — 17:00)

3A17 ANOMALOUS ISOTOPE EFFECT IN OXYGEN ISOTOPE EXCHANGE EQUILIBRIA

Masahiro KOTAKA, *Research Laborotory for Nuclear Reactors, Tokyo Institute of Technology*

3A18 COMPARISON OF THE REACTIVITY OF HYDROXYL GROUP AND AMINO GROUP IN A MATERIAL (USE OF THE HYDROGEN-ISOTOPE EXCHANGE REACTION)

Hiroshi IMAIZUMI, Yoshiyuki YUMOTO, *Faculty of Engineering, Niigata University*

3A19 TEMPERATURE DEPENDENCE OF THE REACTIVITY OF MONOSUBSTITUTED BENZENETHIOLS IN HYDROGEN-ISOTOPE EXCHANGE REACTION

Hiroshi IMAIZUMI, Kaori YAMAUCHI, *Faculty of Engineering, Niigata University*

Wednesday, October 4
[Mössbauer Chemistry II](9:00 — 9:40)

3B01 THE MÖSSBAUER STUDY ON IRON PARTICLES PRODUCED BY LASER VAPORIZATION

Yasuhiro YAMADA, Hirochika SUMINO, Takeshi TOMINAGA, *School of Science, University of Tokyo*

3B02 MÖSSBAUER SPECTRA OF IRON SANDS FROM JAPAN

Yoshitaka MINAI, Rieko NISHIMURA, Takeshi TOMINAGA, *School of Science, University of Tokyo,*
Yukiko OKADA, Shoji HIRAI, *Atomic Energy Research Laboratory, Musashi Institute of Technology*

Wednesday, October 4
[Mössbauer Chemistry III](9:40 — 10:40)

3B03 ANTIMONY-121 AND IODINE-127 MÖSSBAUER SPECTRA OF EIGHT-MEMBERED HETEROCYCLIC ANTIMONY(III) COMPOUNDS

Masaki MAEDA, Takafumi KITAZAWA, Masashi TAKAHASHI, Masuo TAKEDA, *Department of Chemistry, Faculty of Science, Toho University,*
Hiroyuki SAWAHATA, Yasuo ITO, *Research Center for Nuclear Science and Technology, The University of Tokyo,*
Elmer BRÄU, Martin DRÄGER, *Institute for Inorganic Chemistry and Analytical Chemistry, Johannes Gutenberg University, Mainz, Germany*

3B04 ^{127}I MÖSSBAUER SPECTRA AND CRYSTAL STRUCTURES OF IODINE(III) COMPLEXES WITH CHELATING CARBOXYLATO LIGANDS

Tomohiro YOSHINAGA, Takafumi KITAZAWA, Masashi TAKAHASHI, Masuo TAKEDA, *Faculty of Science, Toho University,*
Hiroyuki SAWAHATA, Yasuo ITO, *Research Center for Nuclear Science and Technology, The University of Tokyo*

3B05 TEMPERATURE DEPENDENCE OF ^{57}Fe MÖSSBAUER SPECTRA FOR TWO-DIMENSIONAL COORDINATION POLYMER SPIN-CROSSOVER COMPLEX $Fe(Py)_2Ni(CN)_4$

Takafumi KITAZAWA, Yuji GOMI, Masashi TAKAHASHI, Masuo TAKEDA, *Faculty of Science, Toho University*

Wednesday, October 4
[Mössbauer Chemistry IV](11:00 — 12:00)

3B06 KINETIC ANALYSIS FOR INTRAMOLECULAR ELECTRON TRANSFER IN MIXED-VALENCE IRON COMPLEX

Tadahiro NAKAMOTO, Motomi KATADA, Susumu KITAGAWA, *Faculty of Science, Tokyo Metropolitan University,*
Kazutoyo ENDO, *Showa College of Pharmaceutical Sciences,*
Hirotoshi SANO, *School of Social Information Studies, Otsuma Women's University*

3B07 MÖSSBAUER SPECTROSCOPIC STUDIES OF THERMAL DECOMPOSITION PRODUCTS OF $Na_3[Fe(CN)_5L]\cdot xH_2O$

R. B. LANJEWAR, Satoshi KAWATA, Susumu KITAGAWA, *Faculty of Science, Tokyo Metropolitan University*
Motomi KATADA, *Radioisotope Research Centre, Tokyo Metropolitan University*

3B08 MÖSSBAUER SPECTROSCOPIC STUDIES OF RARE-EARTH IRON COMPLEXES

Tatsuhiko NAWA, Hitoshi KUMAGAI, Satoshi KAWATA, Susumu KITAGAWA, Motomi KATADA, *Faculty of Science, Tokyo Metropolitan University*

Wednesday, October 4
[Mössbauer Chemistry V](13:00 — 14:00)

3B09 SUPERPARAMAGNETIC BEHAVIOR OF THE IRON OXIDES SUPPORTED ON POROUS SILICA GELS

Seiichiro IIJIMA, Fumio MIZUTANI, *National Institute of Bioscience and Human-Technology,*

Akira NOMURA, *National Institute of Materials and Chemical Research*

3B10 MÖSSBAUER SPECTROSCOPIC STUDY OF FERROCENE ADSORBED ON SPHERICAL SILICA POWDERS

Toshiki KAKUTANI, Motoyuki MATSUO, *College of Arts and Science, The University of Tokyo,*
Haruo SATO, *Department of Chemistry, Faculty of Science, Science University of Tokyo*

3B11 A STUDY ON ADSORPTION STATES OF FERROUS AND FERRIC IONS ON AMORPHOUS ALUMINOSILICATE

Akane MIYAZAKI, Motoyuki MATSUO *Graduate School of Arts and Sciences, The University of Tokyo*

Wednesday, October 4
[Mössbauer Chemistry VI](14:00 — 14:50)

3B12 APPLICATION OF THE MÖSSBAUER EFFECT TO THE NON-CRYSTALLINE MATERIAL CHEMISTRY

Tetsuaki NISHIDA, *Department of Chemistry, Faculty of Science, Kyushu University*

3B13 VERIFICATION OF T_g—Δ RULE AND EVALUATION OF THE CRYSTALLIZATION MECHANISM IN FUNCTIONAL GLASSES

Shiro KUBUKI, Tetsuaki NISHIDA, Yonezo MAEDA, *Faculty of Science, Kyushu University*

Wednesday, October 4
[Mössbauer Chemistry VII](15:00 — 16:00)

3B14 THE CHARACTERIZATION OF IRON ACCUMULATED IN THE TEETH ON THE RADULA OF CHITON

Chiya NUMAKO, Motoyuki MATSUO, Bokuichiro TAKANO, *Department of Chemistry, Graduate School of Arts and Sciences, The University of Tokyo,*
Izumi NAKAI, *Department of Applied Chemistry, Faculty of Science, Science University of Tokyo,*
Toshiaki ISHII, *Division of Marine Radioecology, National Institute of Radiological Sciences*

3B15 MÖSSBAUER SPECTROSCOPIC STUDY ON CHEMICAL CHANGES OF IRON COMPOUNDS WITH THE AID OF SULFATE-REDUCING BACTERIA

Miyako KAWAKAMI, Motoyuki MATSUO, *Graduate School of Arts and Sciences, The University of Tokyo,*
Kenji SUGIMORI, *Toho University School of Medicine*

3B16 CEMS STUDY OF CORROSION PRODUCT BY ACID SULFATE WATER

Akio NAKANISHI, Kazuko FUKUMURA, Takayuki KOBAYASHI, *Department of Physics, Shiga University of Medical Science*

Wednesday, October 4
[Mössbauer Chemistry VIII](16:00 — 17:00)

3B17 MÖSSBAUER SPECTROSCOPIC STUDY ON DYNAMIC PROCESS OF ORGANOMETALLIC INCLUSION COMPOUNDS

Mitsuyori NAKASHITA, *Faculty of Science, Hiroshima University,*
Satoru NAKASHIMA, *Radioisotope Center, Hiroshima University,*
Hiroshi SAKAI, *Faculty of Science, Konan University*

3B18 MÖSSBAUER SPECTROSCOPIC STUDY OF AZAFERROCENE AND AZAFERROCENE-THIOUREA CLATHLATE

Takahiko KITAO, Hitomi INAMURA, *Faculty of Science, Hiroshima University,*
Satoru NAKASHIMA, *Radioisotope Center, Hiroshima University,*
Hiroshi SAKAI, *Faculty of Science, Konan University*

3B19 MÖSSBAUER SPECTROSCOPIC STUDY OF α-DIIMINE Fe(II) COMPLEXES INTERCALATED INTO MONTMORILLONITE

Kazutoyo ENDO, Satoru OKAZAKI, Ikuko SAITO, Chikako HONDA, Yasushi KANZAKI, *Showa College of Pharmaceutical Sciences,*
Tadahiro NAKAMOTO, Motomi KATADA, *RI Center, Tokyo Metropolitan University*

Wednesday, October 4
[Environmental Radioactivity IV](9:00 — 10:10)

3C01 PRESENT STATUS OF OGOYA UNDERGROUND LABORATORY AND BACKGROUND CHARACTERISTICS OF Ge AND Si DETECTORS

Kazuhisa KOMURA, Seiji YAMAZAKI, Kaoru UENO, *LLRL, Kanazawa University*

3C02 TRANSPORT MECHANISM OF TRANSURANIUM ELEMENTS IN THE SEA AREA AROUND SELLAFIELD

Jun KUWABARA, Masayoshi YAMAMOTO, Kazuhisa KOMURA, Kaoru UENO, *Low Level Radioactivity Lab., Kanazawa University,*
David J. ASSINDER, *North Wales University, England*

3C03 COSMIC-RAY INDUCED RADIONUCLIDES IN THE NEAGARI METEORITE FELL IN FEBRUARY 18, 1995

Kazuhisa KOMURA, *LLRL, Kanazawa University,*
Yutaka MIYAMOTO, Takashi NAKANISHI, Koh SAKAMOTO, *Faculty of Science, Kanazawa University*

Wednesday, October 4
[Environmental Radioactivity V](10:10 — 10:50)

3C04 Pu-239, 240 AND Am-241 PROFILES IN THE EASTERN NORTH PACIFIC WATER AND SEDIMENT COLUMNS

Mohammad Azizul HAQUE, Masafumi MURAMATSU, Takashi NAKANISHI, *Faculty of Science, Kanazawa University*

3C05 Pu-239, 240 AND Am-241 IN AIRBORNE DUST

Yumiko SHIBA, Mohammad Azizul HAQUE, Takashi NAKANISHI, *Faculty of Science, Kanazawa University*

Wednesday, October 4
[Environmental Radioactivity VI](11:00 — 12:00)

3C06 ON THE LONG TERM STORAGE OF SPENT FUEL FROM THE OPERATION OF POWER REACTORS

Michiaki FURUKAWA, *Department of Chemistry, Faculty of Science, Nagoya University*

3C07 EVALUATION OF RADIOACTIVITY OF THE EARTH SHIELDING AT THE HIGH ENERGY ACCELERATOR

Masaharu NUMAJIRI, Takenori SUZUKI, Yuichi OKI, Taichi MIURA, Kenjiro KONDO, *National Laboratory for High Energy Physics (KEK)*

3C08 GENERATION AND FORMATION MECHANISM OF RADIOACTIVE AEROSOLS CONTAINING CARRIER-FREE NUCLIDES(II)

Yuichi OKI, Masaharu NUMAJIRI, Takenori SUZUKI, Yukio KANDA, Kenjiro KONDO, *National Laboratory for High Energy Physics (KEK)*

Wednesday, October 4
[Measurement Technique I](13:00 — 14:00)

3C09 APPLICATION OF *ICP-MS* TO THE ANALYSIS OF Pb ISOTOPE RATIOS IN AN ANCIENT BRONZE MIRRORS

Nobuaki MATSUOKA, Hidehisa KAWAMURA, Kunio SAEKI, *Kyushu Environmental Evaluation Association,*
Masami KOIKE, *Kyushu Electric Power Co., Inc.,*
Noriyuki MOMOSHIMA, *Kyushu University,*
Hirotoshi OKABE, *Maebaru Municipal Office*

3C10 SPECIATION OF NUCLIDES IN SOLUTIONS BY PHOTOACOUSTIC SPECTROSCOPY

Tetsuo FUKASAWA, Fumio KAWAMURA, Takashi IKEDA, *Power & Industrial Systems R&D Division, Hitachi Ltd.,*
Takehiro KIHARA, Sachio FUJINE, Mitsuru MAEDA, *Tokai Research Establishment, Japan Atomic Energy Research Institute*

3C11 STUDY OF CHEMICAL AND PHYSICAL EFFECTS ON STOPPING POWERS FOR ENERGETIC ^{7*}Li BY ANALYZING DOPPLER BROADENING OF PROMPT γ-RAY

Yoichi SAKAI, *Daido Institute of Technology,*
Chushiro YONEZAWA, Hideaki MATSUE, *Japan Atomic Energy Research Institute,*
Hiroyuki SAWAHATA, Yasuo ITO, *University of Tokyo*

Wednesday, October 4
[Measurement Technique II](14:00 — 14:50)

3C12 OBSERVATION OF NANOMETRE-LEVEL STRUCTURAL CHANGES WITH RADIOACTIVE TRACER

Yuji SASAKI, Yoshio SUZUKI, Yasushi TOMIOKA, *Advanced Research Laboratory, Hitachi Ltd.,*
Mitsuyuki TAKAHASHI, Isamu SATOH, *Institute for Materials Research, Tohoku University*

3C13 EFFECT OF RANDOM SUMMING ON FULL ENERGY PEAK SHAPE

Toshiaki KISHIKAWA, *Faculty of Engineering, Kumamoto University*

Wednesday, October 4
[Measurement Technique III](15:00 — 16:10)

3C14 RELIABILITY OF ACTIVITY DETERMINATION BY CHERENKOV MEASUREMENT

Haruo FUJII, *Tokyo Medical and Dental University,*
Makoto TAKIUE Takashi NATAKE, *Jikei University School of Medicine,*
Tamaru ABURAI, *Japan Atomic Energy Research Institute*

3C15 DETERMINATION OF α-EMITTERS USING TIME INTERVAL ANALYSIS INCORPORATED WITH α/β-PULSE SHAPE DISCRIMINATION IN LIQUID SCINTILLATION COUNTING METHOD

Tetsuo HASHIMOTO, Naoto FUKUYAMA, Yumiko YONEYAMA, Takashi IWAHASHI, Yasuhiro TESHIROGI, *Faculty of Science, Niigata University*

3C16 DEVELOPMENT OF PHOSWICH DETECTORS FOR SIMULTANEOUS RADIATION COUNTING

Shigekazu USUDA, *Japan Atomic Energy Research Institute*

Wednesday, October 4
[Measurement Technique IV](16:10 — 17:10)

3C17 BASIC STUDY OF OPTICALLY STIMULATED LUMINESCENCE FROM NATURAL ROCK SLICES

Tetsuo HASHIMOTO, Shin NOTOYA, Noriyuki SUGAI, *Faculty of Science, Niigata University,*
Hirotomo HASE, *Research Reactor Institute, Kyoto University,*
Youko MIYATAKE, *Faculty of Engineering Science, Osaka University*

3C18 SOME LUMINESCENCES COLOR IMAGES FROM ROCK SLICES IRRADIATED WITH X-RAYS

Tetsuo HASHIMOTO, Toshihiko ARIMURA, Miki TANAKA, *Faculty of Science, Niigata University*

3C19 COMPARISON OF Al-IMPURITY PATTERNS WITH SOME LUMINESCENCE COLOUR IMAGES FROM X-RAY IRRADIATED JAPANESE TWIN (QUARTZ)

Tetsuo HASHIMOTO, Eiji TAKAHASHI, Tetsu OJIMA, *Faculty of Science, Niigata University*

Poster Session

Tuesday, October 3
(14:40 — 17:40)

2P01 SEASONAL VARIATION IN THE ENVIRONMENTAL BACKGROUND LEVEL OF COSMIC RAY PRODUCED ^{22}Na

Hideki TOKUYAMA, Shuichi IGARASHI, *Fukui Prefecture Environmental Radiation Research and Monitoring Center*

2P02 TIME VARIATIONS OF CONCENTRATION OF ^{7}Be and ^{210}Po IN RAIN AT NAGOYA

Kyoko SOGA, Hirotaka ODA, Atsushi SHINOHARA, Michiaki FURUKAWA, *Department of Chemistry, Faculty of Science, Nagoya University,*
Sadao KOJIMA, *Radioisotope Research Center, Aichi Medical University*

2P03 STUDY OF NATURAL-WATER MIGRATION AROUND MT.FUJI USING VANADIUM CONTENTS DETERMINED BY *NAA* AS A PROBE

Yoichi SAKAI, Kazumasa OHSHITA, *Daido Institute of Technology,*
Satoshi KOSHIMIZU, Kenji TOMURA, *Institute for Atomic Energy, Rikkyo University*

2P04 STUDIES ON THE MEASUREMENT OF RADON CONCENTRATION IN WATER

Atsushi OHNO, Hiroe YOSHIOKA, Kunihiko HASEGAWA, *Radiochemistry Research Laboratory, Faculty of Science, Shizuoka University*

2P05 THE BEHAVIOR OF IODINE IN SURFACE SOILS

Hiromi TORIMARU, Riki SEKI, Ryuichi IKEDA, *Department of Chemistry, University of Tsukuba*

2P06 *TL* –CHANGES OF NATURAL QUARTS AFFECTED BY THERMAL ANNEALING TREATMENT

Tetsuo HASHIMOTO, Masayoshi KONISHI, Tomohiro KANETA, *Faculty of Science, Niigata University*

2P07 THERMOLUMINESCENCE PROPERTIES FROM WHITE MINERALS USING INTENSIFIED PHOTODIODE ARRAY PHOTOMETRIC SYSTEM

Tetsuo HASHIMOTO, Masahiro HOTEIDA, *Faculty of Science, Niigata University*

2P08 MEASUREMENTS OF NEUTRON–INDUCED CROSS SECTIONS IN THE ENERGIES OF 40–90 MeV III

Mineo IMAMURA, Sei-ichi SHIBATA, Noriaki NAKAO, Tokushi SHIBATA, *Institute for Nuclear Study, University of Tokyo,*
Enju KIM, Atuko KONNO, Takashi NAKAMURA, *Cyclotron Radioisotope Center, Tohoku University,*
Susumu TANAKA, Hiroshi NAKAJIMA, *JAERI–TAKASAKI, JAERI–TOKAI*

2P09 HEAVY–ION REACTIONS FOR THE ^{14}N + ^{165}Ho AND THE ^{40}Ar + ^{141}Pr SYSTEMS AT INTERMEDIATE ENERGIES

Kazuhiko MUKAI, Akihiko YOKOYAMA, Tadashi SAITO, Hiroshi BABA, *Faculty of Science, Osaka University,*
Yoshitaka OHKUBO, *The institute of the Physical and Chemical Research (RIKEN),*
Shigetoshi KIRYU, Chihiro MURATA, Toshiharu MUROYAMA, Atsushi SHINOHARA, Michiaki FURUKAWA, *Faculty of Science, Nagoya University*

2P10 EXCITATION ENERGY DEPENDENCE OF PROTON–INDUCED FISSION OF ^{238}U

Akihiko YOKOYAMA, Naruto TAKAHASHI, Hiroshi BABA, Ryoichi KASUGA, Takakazu INOUE, Koichi TAKAMIYA, *Faculty of Science, Osaka University,*
Kazuaki TSUKADA, Yuichi HATSUKAWA, Nobuo SHINOHARA, Yuichiro NAGAME, *Department of Radioisotopes, Japan Atomic Energy Research Institute*

2P11 SEARCH FOR BREMSSTRAHLUNG EMISSION WITH α–DECAY (II)

Tsutomu OHTSUKI, Hideyuki YUKI, Yuka AOKI, Hirohito YAMAZAKI, Jirota KASAGI, *Laboratory of Nuclear Science, Tohoku University*

2P12 *AMS* WITH THE NEW TANDEM ACCELERATOR AT THE UNIVERSITY OF TOKYO

Hisao NAGAI, *College of Humanities and Sciences, Nihon University,*
Mineo IMAMURA, Seiichi SHIBATA, *Institute for Nuclear Study, University of Tokyo,*
Kunio YOSHIDA, *University Museum, University of Tokyo,*
Takayuki KOBAYASHI, *Faculty of Science, Kitasato University,*
Masashi TANIKAWA, *Faculty of Science, University of Tokyo,*

Satoshi HATORI, Chuichiro NAKANO, Koichi KOBAYASHI, *Research Center for Nuclear Science and Technology, University of Tokyo*

2P13 A PRESENT STATUS OF ACCELERATOR MASS SPECTROMETRY SYSTEM AT THE UNIVERSITY OF TSUKUBA

Norihiko MIYAZAKI, Riki SEKI, Takayuki BABA, Nina FUNAYA, Tsutomu TAKAHASHI, Terushi KAIKURA, Yoshikazu TAJIMA, Yasuo NAGASHIMA, Kouhei FURUNO, Ryuichi IKEDA, *Accelerator Mass Spectrometry Group, University of Tsukuba*

2P14 VALENCE STATES OF ^{57}Fe ATOMS PRODUCED BY ^{57}Co(EC)^{57}Fe DECAY IN ^{57}Co-DOPED TRINUCLEAR IRON CARBOXYLATES

Takuma SATO, Fumitoshi AMBE, *The Institute of Physical and Chemical Research (RIKEN)*

2P15 CHEMICAL EFFECT INDUCED BY HELIUM ION IRRADIATION ON IRON-SUPPORTED POROUS GLASS

Mikio NAKASHIMA, Chiaki SAGAWA, *Department of Chemistry and Fuel Research, JAERI*

2P16 MÖSSBAUER SPECTROSCOPIC STUDY ON MIXED-VALENCE STATES OF BINUCLEAR FERROCENE DERIVATIVES WITH ALKYL CHAIN

Shinsuke NAKAZAKI, *Faculty of Science, Hiroshima University,*
Satoru NAKASHIMA, *Radioisotope Center, Hiroshima University,*
Hiroshi SAKAI, *Faculty of Science, Konan University*

2P17 ^{121}Sb AND ^{127}I MÖSSBAUER SPECTRA FOR CROWN ETHER ADDUCTS OF SbX_3·(crown) (X=Cl, Br, I)

Masashi TAKAHASHI, Atsushi MATSU-URA, Takafumi KITAZAWA, Masao TAKEDA, *Faculty of Science, Toho University,*
Hiroyuki SAWAHATA, Yasuo ITO, *Research Center for Nuclear Science and Technology, The University of Tokyo*

2P18 DETERMINATION OF THE CHANGE OF THE NUCLEAR CHARGE RADIUS DURING THE 81 keV TRANSITION OF ^{133}Cs

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2P19 MÖSSBAUER SPECTROSCOPY OF ^{133}Cs FROM IMPLANTATIONS OF RADIOACTIVE ^{133}Xe IN METALS

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2P20 MEASUREMENTS OF FREE VOLUMES IN POLYVINYL ALCOHOL BY MEANS OF POSITRONIUM

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2P21 A COMPUTER SIMULATION OF γ–RAY LINE SHAPE FROM ^{7*}Li PRODUCED IN FINE PARTICLES

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2P22 THE HOT ATOM EFFECT BY NEUTRON ACTIVATION IN METALLO–FULLERENES AND THE STUDY OF *HPLC* ELUTION BEHAVIOR BY TRACER

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2P23 PREPARATION OF RADIOACTIVE MULTITRACE SOLUTION FROM ZINC FOIL IRRADIATED WITH HIGH–ENERGY HEAVY ION

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2P24 SEPARATION OF A MULTITRACER FROM AN Au TARGET IRRADIATED BY HEAVY IONS

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2P25 GROUP SEPARATION OF MULTITRACER FROM A GOLD TARGET IRRADIATED BY HIGH-ENERGY HEAVY IONS

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2P26 SYNTHESIS OF ^{188}Re–*DMSA* COMPLEX USING CARRIER-FREE ^{188}Re

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2P27 THERMOCHROMATOGRAPHIC BEHAVIOR OF DIPIVALOYLMETHANATE OF RARE-EARTH ELEMENT

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2P29 SHORT-LIVED NEUTRON ACTIVATION ANALYSIS WITH JRR-3M NEUTRON ACTIVATION FACILITY

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2P30 UTILIZATION OF NEUTRON ACTIVATION ANALYSIS COMPUTER PROGRAM *KAYZERO/SOLCOI* BASED ON k_0 STANDARDIZATION

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2P31 MULTIELEMENT ANALYSIS OF ALUMINUM ALLOY 5052 AND ITS CORROSION PRODUCTS BY NEUTRON ACTIVATION ANALYSIS AND *ICP–AES*

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2P32 TRACE ELEMENT ANALYSIS OF COMMONLY CONSUMED FOOD PULSES BY NEUTRON ACTIVATION ANALYSIS

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2P33 IMPROVEMENT OF TIME INTERVAL ANALYSIS USING HAND-MADE HIGH-RESOLUTION TIME COUNTER MODULE

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2P34 ON NONLINERITY OF THE KURIE PLOT

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