

第31回放射化学討論会

講演発表

○印は連名の場合の口頭発表者

講演時間 20分 (講演 15分, 討論 5分)

10月13日(火)

特別講演会場(大講堂)

座長 中原弘道 (13:20~14:20)

特別講演 1 Ion Beams and Photons: Natural Extensions of Radiochemistry
(Lawrence Livermore National Laboratory, USA)
T. T. Sugihara

A 会場

[核反応]

座長 齋藤直 (9:40~11:00)

- 1A01 アインスタイニウム同位体の崩壊特性
(都立大理・理研) 初川雄一・大槻 勤・塚田和明・○末木啓介・中原弘道・河野 功
- 1A02 中性子欠損 La, Pr 同位体の崩壊
(原研・阪大) ○関根俊明・畑健太郎・永目諭一郎・市川進一・飯村秀紀・大島真澄・高橋成人・横山明彦
- 1A03 ²⁴⁵Cf の崩壊(II)
(名大工・原研・都立大理・広大理・東大核研・追手門学院大) ○間柄正明・篠原伸夫・臼田重和・市川進一・鈴木敏夫・飯村秀紀・永目諭一郎・小林義威・山本忠史・初川雄一・堀口隆良・柴田誠一・藤原一郎
- 1A04 制動放射線による π 中間子放出反応 — 1. 実験結果 —
(金沢大理・東大核研・追手門学院大・名大理) ○捫瀬 彰・海野智之・今坂新一・長田和彦・小林一人・深沢拓司・吉田 学・浜島靖典・坂本 浩・今村峯雄・柴田誠一・藤原一郎・古川路明

座長 畑 健太郎 (11:10~12:10)

- 1A05 制動放射線による π 中間子放出反応 — 2. 二次反応の考察 —
(金沢大理・東大核研・追手門学院大) ○浜島靖典・深沢拓司・吉田 学・窪田康浩・坂本 浩・柴田誠一・藤原一郎
- 1A06 制動放射線による π 中間子放出反応 — 3. Unfolding 法と励起曲線 —
(金沢大理・東大核研・追手門学院大) ○深沢拓司・吉田 学・浜島靖典・坂本浩・柴田誠一・藤原一郎

1A07 光核反応におけるフラグメンテーション過程

(東大核研・金沢大理・追手門学院大・名大理・東大原セ・東大理・日大文理)
○柴田誠一・今村峯雄・宮地 孝・武藤正文・坂本 浩・浜島靖典・窪田康浩・吉田 学・深沢拓司・沖崎昌平・藤原一郎・古川路明・小林紘一・吉田邦夫・永井尚生

<昼休み・若手研究者の会総会>

(特別講演1)

座長 今村 峯 雄 (14:30~15:50)

1A08 東大核研 GARIS による短寿命 α 壊変核種の研究

(阪大理・都立大理・理研・東大核研・東北大サイクロ・新潟大理) 宮地宇也・○末木啓介・森田浩介・野村 亨・久保野茂・川上宏金・田中仁市・小柳津充広・篠塚 勉・工藤久昭

1A09 $^{197}\text{Au} + ^{16}\text{O} - 6.6 \text{ MeV/u}$ および 8.8 MeV/u 系の核子移行反応

(阪大理・名大理・原研) ○横山明彦・斎藤 直・若松智之・馬場 宏・篠原 厚・畑健太郎・永目諭一郎・市川進一・馬場澄子・関根俊明

1A10 $^{37}\text{Cl} + ^{68}\text{Zn}$ 反応における重粒子放出について

(原研・阪大理・都立大理) ○永目諭一郎・横山明彦・初川雄一・間柄正明・畑健太郎・市川進一・関根俊明・馬場澄子・井出野一実・池添 博

1A11 複合核 ^{105}Ag の生成と崩壊について(II)

(原研・阪大理) ○畑健太郎・永目諭一郎・関根俊明・馬場澄子・横山明彦

座長 関 根 俊 明 (16:00~17:00)

1A12 アクチノイド元素の低エネルギー核分裂に於ける質量分割

(都立大理・原研) ○大槻 勤・末木啓介・初川雄一・中原弘道・永目諭一郎・篠原信夫

1A13 ^{209}Bi , ^{208}Pb , ^{207}Pb の重イオン誘起核分裂

(阪大理・名大理・追手門学院大・都立大理・金沢大理) ○吉崎信樹・斎藤 直・若松智之・庄司正秀・横山明彦・杜 明進・高橋成人・鹿取謙二・馬場 宏・篠原厚・古川路明・藤原一郎・初川雄一・末木啓介・浜島靖典

1A14 ^{233}U , ^{235}U 及び ^{238}U の ^{12}C 誘起核分裂

(阪大理・原研) ○杜 明進・高橋成人・横山明彦・馬場 宏・馬場澄子・畑健太郎・永目諭一郎

座長 工 藤 久 昭 (17:10~18:10)

1A15 ^{232}Th の ^3He 誘起核分裂

(阪大理) ○若松智之・斎藤 直・吉崎信樹・古谷栄樹・馬場 宏

1A16 二, 三の (n, γ) 反応核の熱中性子断面積と γ 線分岐比

(京大原子炉) ○小山睦夫・山田 繁・崔 虎林・高田実弥・松下録治

1A17 希土類領域における酸化物イオンのオンライン質量分離

(原研・阪大理) ○市川進一・関根俊明・大島真澄・飯村秀紀・高橋成人

<核化学グループの会(18:30~20:30)>

B 会場

〔放射化分析〕

座長 八木 益 男 (9:40~11:00)

- 1B01 不足当量分析法の新しい試み(1) 原理と特徴
(NTT研) 重松俊男
- 1B02 不足当量分析法の新しい試み(2) 超伝導酸化物のバリウム、イットリウムの定量
(NTT研) ○重松俊男・加藤正明・鹿野弘二
- 1B03 高精度・高精度不足当量分析(3) 超伝導酸化物のイットリウムの定量
(NTT研) ○加藤正明・重松俊男・鹿野弘二・米沢洋樹
- 1B04 高精度・高精度不足当量分析(4) 超伝導酸化物の酸素の定量
(NTT研) ○鹿野弘二・米沢洋樹・加藤正明・重松俊男

座長 木 村 幹 (11:10~12:10)

- 1B05 標準添加内標準法による環境試料の光量子放射化分析
(東北大核理研) ○八木益男・榎本和義
- 1B06 標準添加内標準法の特徴と新たな展開
(東北大核理研) ○榎本和義・八木益男
- 1B07 ウランおよびタリウムの光量子放射化分析
(東北大核理研) ○榎本和義・八木益男

<昼 休 み>

(特別講演1)

座長 榎 本 和 義 (14:30~15:50)

- 1B08 二枚貝の貝殻形成における微量元素の挙動 — その2
(愛教大・都立科技大) ○吉岡小夜子・寺井 稔
- 1B09 セリウム内標準中性子放射化分析法による血清中のセレンと亜鉛の定量
(原研・東大医・公害研) ○米沢伸四郎・星三千男・佐伯正克・立川圓造・今井秀樹・兜 真徳・鈴木継美
- 1B10 新第三紀花崗岩体中の金の放射化分析
(青学大理工・地調) ○吉原 剛・斎藤裕子・木村 幹・石原舜三
- 1B11 機器中性子放射化分析法による石炭中の希土類元素の定量
(武蔵工大原研) ○中西幸雄・鈴木章悟・平井昭司

座長 日 下 讓 (16:00~17:00)

- 1B12 植物 — 人間の微量元素循環
(都立科技大・愛教大・都立立川短大・都立農試) ○寺井 稔・吉岡小夜子・吉田勉・加藤哲朗
- 1B13 中性子放射化分析法による道路沿い塵埃中の臭素および塩素の定量
(武蔵工大原研) ○遠藤美徳・平井昭司
- 1B14 地球化学的標準岩石の放射化分析
(金沢大理・金沢女短大) ○宮本ユタカ・青田尚美・小三田栄・深沢拓司・尾崎裕司・棚瀬 彰・浜島靖典・坂本 浩

座長 坂本 浩 (17:10~18:10)

- 1B15 NIES 環境標準試料の機器中性子放射化分析
(武蔵工大原研) ○鈴木章悟・松本妃代・岡田往子・平井昭司
- 1B16 中性子放射化分析法による半導体材料中の U, Th の定量
(武蔵工大原研) ○岡田往子・平井昭司
- 1B17 フィッション・トラック法による ppb レベルのウラン濃度の定量
(金沢大理) 中西 孝

<放射化分析グループの会(18:30~20:30)>

C 会場

[環境放射能]

座長 樋口 英雄 (9:40~11:00)

- 1C01 年輪別にみた杉中の ^{90}Sr と ^{137}Cs
(青学大理工) ○齋藤裕子・前田進悟・木村 幹
- 1C02 南極における人工放射性核種
(日本分析セ) ○池内嘉宏・森本隆夫・橋本丈夫・吉清水克己・鳥居鉄也
- 1C03 神岡陽子崩壊実験所周辺の天然放射能のバックグラウンドレベル
(金沢大理 LLRL・東大宇宙研・福井衛研) ○山本政儀・小村和久・上野 馨・須田英博・手島政広・五十嵐修一
- 1C04 ^{225}Ra 収率トレーサーを用いた α 線スペクトロメトリーによる環境試料の微量 ^{226}Ra の定量
(金沢大理 LLRL) ○山本政儀・小村和久・上野 馨

座長 山本 政儀 (11:10~12:10)

- 1C05 オープンバイアル法による土壌大気からのラドン放出量の測定
(都立大理・原子力安全技術セ) ○堀内公子・村上悠紀雄
- 1C06 海水中放射性核種の積算型捕集法について
(日本分析セ) 樋口英雄・野中信博・○森本隆夫
- 1C07 RaA (^{218}Po) の拡散係数
(信州大教・高ニ研) ○村松久和・近藤健次郎・三浦太一

<昼 休 み>

(特別講演 1)

[ホットアトム化学]

座長 朝野 武美 (14:30~15:50)

- 1C08 コバルトフタロシアニン — 亜鉛フタロシアニン混晶系のホットアトム化学(続報)
(筑波大化) ○沖 雄一・荘司 準・池田長生
- 1C09 金属ポルフィリン誘導体における中心金属の反跳挙動
(筑波大化) ○荘司 準・沼田 靖・R. B. Cantú・池田長生
- 1C10 反跳インプラネーションによる化学反応機構: 配位子効果
(東北大理) ○関根 勉・吉原賢二
- 1C11 反跳インプラネーション反応におけるエネルギー依存性について
(東北大理) ○宮川 篤・関根 勉・吉原賢二

座長 莊 司 准 (16:00~17:00)

- 1C12 ^{51}Cr と ^{55}Cr のホットアトム化学挙動における同位体効果と照射温度効果
(立教大原研・立教大一般教育) ○松浦辰男・佐々木研一・栗原英明・永原照明
- 1C13 [2- ^{14}C , 5- ^3H] ウラシルの β 壊変にともなう化学的效果の研究
(大放研) ○朝野武美・桐谷玲子・藤田慎一
- 1C14 ポリエチレンテレフタレート薄膜と反跳トリチウムとの反応
(東大RIセ・千葉大教養・原研) ○野川憲夫・森川尚威・大橋國雄・松岡弘充・茂木照十三・守屋 孝

【メスbauer効果】

座長 酒 井 宏 (17:10~17:50)

- 1C15 γ -X同時計数法による硫酸鉄中での ^{57}Co のEC壊変の研究
(滋賀医大) 小林隆幸・○福村和子
- 1C16 遅延同時計数メスbauer分光法を用いたEC過程に伴う化学的後遺効果の研究
(都立大理) ○渡辺裕夫・遠藤和豊・佐野博敏

<ホットアトム化学グループの会(18:30~20:30)>

10月14日(水)

特別講演会場(大講堂)

座長 高 島 良 正 (13:20~14:20)

- 特別講演2 ヨーロッパにおける最近の環境放射能問題
(IAEA, ウィーン大学, 近畿大学)
西 脇 安

A 会 場

【核反応】

座長 馬 場 宏 (9:00~10:00)

- 2A01 IGISOLによる核分裂片の電荷分布の測定(I)
(新潟大理・東北大サイクロ) ○工藤久昭・堀越裕三・谷川勝至・橋本哲夫・藤岡学・篠塚 勉・田口和博
- 2A02 IGISOLによる核分裂片の電荷分布の測定(II)
(新潟大理・東北大サイクロ) ○堀越裕三・工藤久昭・谷川勝至・橋本哲夫・藤岡学・篠塚 勉・田口和博
- 2A03 高速単色中性子による $^{14}\text{N}(n, x)^{10}\text{Be}$ 反応断面積の測定 — 大気における ^{10}Be 生成率の推定
(東大核研・東大原セ・東大理・日大文理・都立大理) ○今村峯雄・柴田誠一・佐藤信吾・小林紘一・吉田邦夫・山下 博・永井尚生・小林貴之

【放射化分析】

座長 柴 田 誠 一 (10:10~11:10)

- 2A04 AMSによる月表面岩石試料中の ^{10}Be の深度分布測定— 10^7 年スケールでの太陽宇宙線エネルギースペクトルの再評価
(日大文理・東大核研・東大原セ・東大理・U.C.S.D., L.A.N.L.) ○永井尚生・今村峯雄・小林紘一・吉田邦夫・本田雅健・山下博・西泉邦彦・C.P. Kohl, J.R. Arnold, R.C. Reedy
- 2A05 軽元素の α 粒子共鳴散乱分析法
(NTT研) ○米沢洋樹・重松俊男
- 2A06 α 粒子共鳴散乱分析法による炭素, 酸素の分析
(NTT研) ○米沢洋樹・重松俊男
- 座長 小山 睦 夫 (11:20~12:20)
- 2A07 タンデム加速器を用いる超微量放射性核種の検出(7)
(東大理・日大文理・東大核研・東大原セ・共立薬大・都立大理) ○吉田邦夫・永井尚生・今村峯雄・小林紘一・吉川英樹・小林貴之・柴田誠一・本田雅健・山下博
- 2A08 14 MeV中性子を用いた繰り返し放射化分析について
(近畿大原研) 近藤嘉秀
- 2A09 インジウムの不足当量法によるカドミウム, インジウム, スズの同時定量
(NTT研) 小林健二

<昼 休 み>

(特別講演 2)

(ポスターセッション)

座長 平井 昭 司 (16:00~17:40)

- 2A10 熱外中性子放射化分析法による岩石試料中の微量インジウムの迅速定量
(群馬大教養・群馬大工) 海老原充・○根本明彦・赤岩英夫
- 2A11 ^{105}Ru を利用するルテニウムの熱外中性子放射化分析
(立教大原研・立教大理) ○戸村健児・林俊哉・石森達二郎
- 2A12 ハロゲンの放射化分析における諸問題
(京大原子炉) 崔虎林・高田実弥・松下録治・小山睦夫
- 2A13 ニオブ化合物のLX線強度比
(東北大理) ○飯原順次・伊沢郡蔵・大森 巍・吉原賢二
- 2A14 高エネルギー加速器の運転に伴うエアロゾルの生成について(2)
(高エ研) 神田征夫・○平 雅文・近藤健次郎・三浦太一

B 会 場

[トリチウム]

座長 井上 義 和 (9:00~10:00)

- 2B01 トリチウムの電解濃縮における重水素とトリチウムの濃縮率の関係
(新潟大理) 橋本哲夫・○野中雅史・重富潤一・酒井裕二
- 2B02 一般日本人集団の器官・組織中のトリチウム濃度
(京大RIセ・京大医・京大原子炉) ○青木 達・栗原紀夫・山本啓一・上野陽里
- 2B03 大気中トリチウムの化学形別濃度測定(第4報)
(九大工・九大理) ○岡井富雄・初村美佳・高島良正

座長 橋本哲夫 (10:10~11:10)

- 2B04 深層海水中のトリチウム濃度
(九大理) ○加治俊夫・百島則幸・高島良正
- 2B05 光量子測定によるトリチウム計測 — 光量子発生部
(熊大工) 岸川俊明
- 2B06 トリチウムの環境動態における植物の役割
(九大理) 百島則幸・○長谷文昌・柳瀬直美・高島良正

座長 岸川俊明 (11:20~12:20)

- 2B07 土壌へのトリチウムガスの取り込み
(九大理) 百島則幸・○永里良彦・高島良正
- 2B08 環境試料中の有機形(組織結合型)トリチウムの簡易測定法
(放医研) ○井上義和・金 試俠・岩倉哲男
- 2B09 樹木中のトリチウムの定量
(北陸大薬・金沢大LLRL) ○山田芳宗・桐山典城・甕 幹夫・上野 馨

<昼 休 み>

(特別講演 2)

(ポスターセッション)

座長 岩田志郎 (16:00~17:40)

- 2B10 KEK12 GeV PS ビームライン周辺空気中のトリチウムの化学形
(高工研) ○三浦太一・近藤健次郎・神田征夫・平 雅文
- 2B11 アルミニウム表面におけるトリチウムの吸着脱離挙動
(原研) ○正木信行・平林孝瓘・佐伯正克

[溶液化学]

- 2B12 ^{99m}Tc ジェネレータ溶離液の比放射能測定
(金沢大医短) 天野良平
- 2B13 アセチルアセトンとチオ尿素を用いた ^{99}Tc の溶媒抽出
(東北大理) ○橋本和幸・大森 巍・吉原賢二
- 2B14 イオン交換法によるトレーサ濃度のピスマスの溶存状態の研究(その2)
(静岡大理) ○菅沼英夫・小野甲之・波多江一八郎

C 会場

[メスバウアー効果]

座長 遠藤和豊 (9:00~10:00)

- 2C01 YIG 表面に吸着した ^{151}Gd の発光メスバウアースペクトル
(理研) ○安部静子・安部文敏・岡田卓也・関沢 尚
- 2C02 $\gamma\text{-Fe}_2\text{O}_3$, NiFe_2O_4 表面に吸着した $^{57}\text{Co}^{2+}$, $^{119}\text{Sb}^{5+}$ の in situ および ex situ
発光メスバウアースペクトル
(理研) ○安部文敏・安部静子・岡田卓也
- 2C03 凍結溶液および高分子シート中のアンチモン(III) 錯体のメスバウアースペクトルの測定

(東邦大理) ○高橋 正・大山隆一・竹田満洲雄

座長 西田 哲明 (10:10~11:10)

- 2C04 マトリックス単離した有機スズ化合物のメスbauer分光法による研究
(東大理・東理大理) ○大林千絵・佐藤春雄・富永 健
- 2C05 フェライト中のスズのメスbauer効果
(広島大理) ○大下浩之・山田康治・市坡純雄
- 2C06 ルテニウムのメスbauer分光学的研究(II)
(都立大理・理研) ○小林義男・片田元己・佐野博敏・岡田卓也・浅井吉蔵・安部
文敏・安部静子・坂井信彦

座長 市坡 純雄 (11:20~12:20)

- 2C07 メスbauer分光法による河川懸濁物の状態分析
(東工大総理工) 松尾基之・○小林孝彰
- 2C08 $(C_nH_{2n+1}NH_3)_3[Fe(CN)_6]$ 型化合物のメスbauer分光学的研究
(都立大理) ○片田元己・坂本直哉・中居進治・佐野博敏
- 2C09 結晶性リン酸スズ-アルキルアミン層間化合物のメスbauer分光学的研究(II)
(都立大理) ○中居進治・片田元己・佐野博敏

<昼 休 み>

(特別講演 2)

(ポスターセッション)

座長 片田 元己 (16:00~17:40)

- 2C10 低温に於ける表面酸化物の散乱メスbauerスペクトル
(滋賀医大・京大RIセ) ○小林隆幸・福村和子・牧田知子・五十棲泰人
- 2C11 鉄イオンをプローブとして含む幾つかのガリウム酸塩ガラスのメスbauerスペクトルと
示差熱分析
(九大理) 西田哲明・○猿渡説子・高島良正
- 2C12 鎖状、層状、ならびに網目構造を有する種々の半導性バナジウム酸塩ガラスの構造と物性
(九大理) ○西田哲明・猿渡説子・高島良正
- 2C13 メスbauer分光法によるテルル酸塩の研究
(広島大理・京大原子炉) ○蔭岡弘知・山田康治・市坡純雄・酒井 宏
- 2C14 テルル酸化物ガラスの ^{125}Te メスbauer効果
(京大原子炉) ○酒井 宏・前田 豊

P 会場 (ポスター発表, 14:30~15:50)

- P01 KUR 黒鉛設備に新設した圧気輸送管の特性
(京大原子炉) 松下録治・高田実弥・西川佐太郎・辻本日東実・中野幸広・○小山
睦夫
- P02 六甲山系植物中の微量元素の放射化分析
(神戸環保研・兵庫公害研・神戸中央森林公園・京大原子炉) ○今井佐金吾・尾崎
富生・三宅慎也・室井元雄・長谷川明彦・神木照雄・高田実弥・小山睦夫
- P03 中性子放射化分析法によるフッ化物光ファイバ用高純度原料中の遷移金属元素の定量

- (NTT研) 小林健二
- P 0 4 放射化分析による DNA 中の金属の存在の可能性とトリチウムによる DNA 損傷
(静岡大理・立教大原研) ○久田達也・吉岡潤江・吉永光一・長谷川罔彦・松浦辰男
- P 0 5 光核反応のモニター反応
(金沢大理・東大核研・追手門学院大) ○浜島靖典・長田和彦・深沢拓司・吉田学・坂本 浩・柴田誠一・藤原一郎
- P 0 6 生体試料中微量元素の PIXE 分析
(放医研・秋田大医) ○湯川雅枝・喜多尾憲助・久松俊一・滝澤行雄
- P 0 7 超プラトニウム元素のための迅速化学分離装置の開発
(都立大理) ○末木啓介・塚田和明・初川雄一・遠藤和豊・中原弘道
- P 0 8 チェルノブイル事故による大気塵埃中の核種分布と推定炉内生成核種分布との比較
(原研) ○鈴木敏夫・岡下 宏・梅沢弘一
- P 0 9 無担体 $^{119}\text{Sb}^{5+}$ の各種金属酸化物表面への吸着
(理研) 安部静子
- P 1 0 $[2 - ^{14}\text{C}, 5 - ^3\text{H}]$ ウラシルの合成
(大放研・近畿大農) ○朝野武美・桐谷玲子・藤田慎一・川西徹朗
- P 1 1 混合ガス中の水素によるパイ中間子捕獲確率の測定
(名大理・京大原研・高エ研) ○篠原 厚・今西信嗣・竹内由佳・豊田勝也・吉村喜男
- P 1 2 ミュオンスピン共鳴法による化学反応の研究
(東大工・東大原セ・東大理) ○東 俊行・田畑米穂・伊藤泰男・西山樟生・永嶺謙忠
- P 1 3 アンチモン(III)カルボン酸錯体の放射線分解の ^{121}Sb メスバウアー分光法による研究
(東邦大理) ○竹田満洲雄・梶谷良樹・川瀬義信・生澤英典・高橋 正
- P 1 4 中国新疆ウイグル自治区地質考古試料の ^{57}Fe メスバウアースペクトル(続報)
(理研・新疆生物土壤沙漠研) ○安部文敏・安部静子・矢吹英雄・黄 子蔚・野崎正
- P 1 5 重イオンプローブ後方散乱分析による炭素膜製作過程の解析
(理研・東大核研・山梨大) ○荒谷美智・矢野倉実・菅井 勲・加藤 一

10月15日(木)

A 会 場

〔アクチニド〕

座 長 中 西 孝 (9:00~10:00)

- 3 A 0 1 アスタチン分子の形成と放射線分解
(阪大理) ○高橋成人・湯川直樹・馬場 宏
- 3 A 0 2 内部転換電子測定装置の製作と Pu 同位体比測定への応用
(東北大金研) 鈴木 進・塩川佳伸・○鈴木克彦
- 3 A 0 3 協同効果を利用したピラゾロン誘導体による Am(III)の溶媒抽出
(東北大工) 井上 泰・朽山 修・○藤平智子

座 長 立 川 圓 造 (10:10~11:10)

3 A 0 4~05 (招待講演)

Solid State Chemistry of the Actinide Elements

(Argonne National Laboratory, USA) Lester R. Morss

- 3A06 リン酸ビスマス共沈法によるアクチノイド元素の分離と定量
(原研) 木村貴海

座長 三頭 聡 明 (11:20~12:20)

- 3A07 陰イオン交換法によるランタノイド・アクチノイド元素の迅速化学分離に関する基礎研究
(都立大理) ○塚田和明・末木啓介・遠藤和豊・中原弘道
- 3A08 限外ろ過法による合成地下水へのThの溶解度の検討
(金沢大理) ○中西 孝・浜 克宏
- 3A09 ブラジル サリトレのカーボナタイト中の $^{234}\text{U}/^{238}\text{U}$ 放射能比
(地質調) ○金井 豊・神谷雅晴

B 会場

[熱蛍光]

座長 中島 敏 行 (9:00~10:00)

- 3B01 天然および合成石英中の不純物含量と熱蛍光発光特性について
(新潟大理) 橋本哲夫・○横坂恭一・虎澤昌弘・久保田知明・葉葺久尚
- 3B02 海岸砂や砂丘砂石英からの熱蛍光カラー写真(TLCI)のカラー画像解析
(新潟大理) ○橋本哲夫・横坂恭一・葉葺久尚・久保田知明・虎澤昌弘
- 3B03 熱蛍光によるナウマン象化石関連地層試料の年代測定
(新潟大理) 橋本哲夫・○葉葺久尚・虎澤昌弘・久保田知明・横坂恭一

[液シン]

座長 長谷川 罔 彦 (10:10~11:10)

- 3B04 ESR法による被曝線量評価法の開発
(放医研) 中島敏行
- 3B05 液体シンチレーション α 計数の時間相関によるTh系列核種の絶対測定
(新潟大理) 橋本哲夫・○酒井裕二・重富潤一・野中雅史
- 3B06 空気ルミネッセンスによるラドンの測定
(共立薬大・慈恵医大) ○本間義夫・滝上 誠・村瀬裕子

座長 百島 則 幸 (11:20~12:20)

- 3B07 ^{125}Sb のCerenkov光
(静岡大理) ○長谷川罔彦・伊藤田佳子
- 3B08 Cerenkov光の測定 — 計数効率について
(静岡大理) ○佐藤健二・長谷川罔彦
- 3B09 チェレンコフ測定法による二重標識試料の解析測定
(慈恵医大・東京医歯大) ○滝上 誠・藤井張生

C 会場

[テクネチウム]

座長 吉原 賢 二 (9:00~10:00)

- 3C01 水試料中の⁹⁹Tcの分析
 (九環協・九大理) ○馬田敏幸・松岡信明・岡村正紀・白石直典・百島則幸・高島良正
- 3C02 土壌試料中の⁹⁹Tcの分析
 (九環協・九大理) ○岡村正紀・松岡信明・馬田敏幸・白石直典・百島則幸・高島良正
- 3C03 海水中におけるテクネチウムの挙動
 (放医研) ○平野茂樹・松葉満江・小柳 卓

【中間子化学】

座長 安部文敏 (10:10~11:10)

- 3C04 液体水素中のHeへの μ^- 移行反応
 (東大工・理研・東大理・東大原セ) ○平田嘉裕・松崎禎市郎・石田勝彦・永嶺謙忠・伊藤泰男・田端米穂
- 3C05 中間子原子と分子構造 — 水素含有化合物II —
 (名大理・京大原研・東北大理・高エ研) ○篠原 厚・今西信嗣・竹内由佳・豊田勝也・宮本伸一・鍛治東海・吉村喜男
- 3C06 アセチルアセトン錯体でのミュオン収率に対する中心金属の影響
 (東大理) ○久保謙哉・酒井陽一・富永 健・西山樟生・永嶺謙忠

座長 伊藤泰男 (11:20~12:00)

- 3C07 ミュオンスピニング法によるトリス(アセチルアセトナト)金属(III)錯体中の正ミュオンの挙動の研究
 (東大理) ○久保謙哉・酒井陽一・富永 健・西山樟生・永嶺謙忠
- 3C08 コバルト(III)錯体中の正ミュオンのサイトと状態
 (東大理) ○酒井陽一・久保謙哉・富永 健・西山樟生・永嶺謙忠

LIST OF PAPERS

Presented at

THE 31-ST SYMPOSIUM ON RADIOCHEMISTRY

Organizer

Y. TAKASHIMA (Kyushu University)

Executive Committee

A. KATASE (Kyushu University)

H. KURIHARA (Fukuoka University)

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T. NISHIDA (Kyushu University)

N. MOMOSHIMA (Kyushu University)

T. KAJI (Kyushu University)

OCTOBER 13-15, 1987
HAKOZAKI CAMPUS, KYUSHU UNIVERSITY
FUKUOKA

Tuesday, October 13

PLENARY LECTURE 13 : 20-14 : 20

P L 01 ION BEAMS AND PHOTONS: NATURAL EXTENSIONS OF RADIOCHEMISTRY
Thomas T. SUGIHARA(Lawrence Livermore National Laboratory, USA)

Lecture Session

[Nuclear Reaction]

(9 : 40-11 : 00)

- I A 01 STUDY ON THE DECAY PROPERTIES OF EINSTEINIUM ISOTOPES
Faculty of Science, Tokyo Metropolitan University
Institute of Physical and Chemical Research
Yuichi HATSUKAWA, Tsutomu OHTSUKI, Kazuaki TSUKADA, Keisuke SUEKI, Hiromichi NAKAHARA, Isao KOHNO
- I A 02 DECAY OF SOME NEUTRON DEFICIENT ISOTOPES OF LANTHANUM AND PRASEODYMIUM
Japan Atomic Energy Research Institute, Toshiaki SEKINE, Kentaro HATA, Yuichiro NAGAME, Sinichi ICHIKAWA, Hideki IIMURA, Masumi OSHIMA
Faculty of Science, Osaka University, Naruto TAKAHASHI, Akihiko YOKOYAMA
- I A 03 DECAY OF ^{245}Cf
Faculty of Engineering, Nagoya University, Masaaki MAGARA
Japan Atomic Energy Research Institute, Nobuo SHINOHARA, Shigekazu USUDA, Shinichi ICHIKAWA, Toshio SUZUKI, Hideki IIMURA, Yuichiro NAGAME, Yoshii KOBAYASHI, Tadashi YAMAMOTO
Faculty of Science, Tokyo Metropolitan University, Yuichi HATSUKAWA
Faculty of Science, Hiroshima University, Takayoshi Horiguchi
Institute for Nuclear Study, University of Tokyo, Seiichi SHIBATA
School of Economics, Ottemongakuin University, Ichiro FUJIWARA
- I A 04 PION EMITTING REACTIONS BY BREMSSTRAHLUNG
1. EXPERIMENT AND RESULTS
Fac. OF Sci. Kanazawa Univ., Akira KUNUGISE, Shin-ichi IMASAKA, Tomoyuki UNNO, Kazuhiko OSADA, Kazuto KOBAYASHI, Takuji FUKASAWA, Manabu YOSHIDA, Yasunori HAMAJIMA, Koh SAKAMOTO, Inst. for Nucl. Study, Univ. of Tokyo, Mineo IMAMURA, Seiichi SHIBATA, Ottemongakuin Univ., Ichiro FUJIWARA
Fac. of Sci. Nagoya Univ., Michiaki FURUKAWA

(11 : 10-12 : 10)

I A 05 PION EMITTING REACTIONS BY BREMSSTRAHLUNG. -2 STUDY OF SECONDARY REACTIONS

Fac. of Science, Kanazawa Univ., Inst. for Nucl. Study, Univ. Tokyo*, Ottemongakuin Univ.**, Yasunori HAMAJIMA, Takuji FUKASAWA, Manabu YOSIDA, Yasuhiro KUBOTA, Koh SAKAMOTO, Seiichi SHIBATA*, Ichiroh FUJIWARA**

I A 06 PION EMITTING REACTIONS BY BREMSSTRAHLUNG.
3.-UNFOLDING METHOD AND EXCITATION CURVES-

Fac. of Science, Kanazawa Univ., Inst. for Nucl. Study, Univ. Tokyo*, Ottemongakuin Univ.**, Takuji FUKASAWA, Manabu YOSHIDA, Yasunori HAMAJIMA, Koh SAKAMOTO, Seiichi SHIBATA*, Ichiroh FUJIWARA**

I A 07 FRAGMENTATION PROCESS IN PHOTONUCLEAR REACTIONS

Inst. for Nuclear Study, Univ. of Tokyo¹, Fac. of Sci., Kanazawa Univ.², Ottemongakuin Univ.³, Fac. of Sci., Nagoya Univ.⁴, Research Center for Nuclear Sci. and Tech., Univ. of Tokyo⁵, Fac. of Sci., Univ. of Tokyo⁶, Coll. of Humanities and Sci., Nihon Univ.

Seiichi SHIBATA¹, Mineo IMAMURA¹, Takashi MIYACHI¹, Masafumi MUTOH¹, Koh SAKAMOTO², Yasunori HAMAJIMA², Yasuhiro KUBOTA², Manabu YOSHIDA², Takushi FUKASAWA², Shohei OKIZAKI², Ichiro FUJIWARA³, Michiaki FURUKAWA⁴, Koichi KOBAYASHI⁵, Kunio YOSHIDA⁶, and Hisao NAGAI⁷

(Lunch Time 12 : 10-13 : 20)

(Plenary Lecture PL01 13 : 20-14 : 20)

[Nuclear Reaction] (Continued)

(14 : 30-15 : 50)

I A 08 STUDY ON SHORT-LIVES α -DECAY NUCLEI BY INS GARIS

Faculty of Science, Osaka University, Hiroari MIYATAKE,
Faculty of Science, Tokyo Metropolitan University, Keisuke SUEKI,
Cyclotron Laboratory, the Institute of Physical and Chemical Research, Kohsuke MORITA,
Institute for Nuclear Study, University of Tokyo, Toru NOMURA, Shigeru KUBONO,
Hirokane KAWAKAMI, Jin-ichi TANAKA, Mitsuhiro OYAIZU,
Cyclotron and Radioisotope Center, Tohoku University, Tsutomu SHINOZUKA,
Faculty of Science, Niigata University, Hisaaki KUDO

I A 09 NUCLEON TRANSFER REACTION OF THE $^{197}\text{Au}+^{16}\text{O}$ -6.6MeV/u AND 8.8MeV/u SYSTEMS

Faculty of Science, Osaka University, Akihiko YOKOYAMA, Tadashi SAITO, Satoshi WAKAMATSU, Hiroshi BABA

Faculty of Science, Nagoya University, Atsushi SHINOHARA

Japan Atomic Energy Research Institute, Kentaro HATA, Yuichiro NAGAME, Shinichi ICHIKAWA, Sumiko BABA, Toshiaki SEKINE

- I A 10 HEAVY PARTICLE EMISSION PROCESS IN THE $^{37}\text{Cl} + ^{68}\text{Zn}$ HEAVY ION REACTION
 Japan Atomic Energy Research Institute, Yuichiro NAGAME, Masaaki MAGARA, Kentaro HATA, Sinichi ICHIKAWA, Toshiaki SEKINE, Sumiko BABA, Kazumi IDENO and Hiroshi IKEZOE
 Faculty of Science, Osaka University, Akihiko YOKOYAMA
 Faculty of Science, Tokyo Metropolitan University, Yuichi HATSUKAWA
- I A 11 FORMATION AND DEEXCITATION OF THE ^{105}Ag COMPOUND NUCLEUS(II)
 Japan Atomic Energy Research Institute, Kentaro HATA, Yuichiro NAGAME, Toshiaki SEKINE and Sumiko BABA
 Faculty of Science, Osaka University, Akihiko YOKOYAMA

(16 : 00-17 : 00)

- I A 12 MASS DIVISION IN LOW ENERGY FISSION ACTINOID ELEMENTS
 Faculty of Science, Tokyo Metropolitan University,
 *Chemistry Division, Japan Atomic Energy Research Institute
 Tsutomu OHTSUKI, Keisuke SUEKI, Uichi HATSUKAWA, Hiromichi NAKAHARA, Nobuo SHINOHARA*, Yuichiro NAGAME*
- I A 13 HEAVY-ION INDUCED FISSION OF ^{209}Bi , ^{208}Pb , and ^{207}Pb
 Faculty of Science, Osaka University, Nobuki YOSHIZAKI, Tadashi SAITO, Satoshi WAKAMATSU, Masahide SHOJI, Akihiko YOKOYAMA, Ming-Jinn DUH, Naruto TAKAHASHI, Kenji KATORI, and Hiroshi BABA
 Faculty of Science, Nagoya University, Atsushi SHINOHARA and Michiaki FURUKAWA
 School of Economics, Otomon Gakuin University, Ichiro FUJIWARA
 Faculty of Science, Tokyo Metropolitan University, Yuichi HATSUKAWA and Keisuke SUEKI
 Faculty of Science, Kanazawa University, Yasunori HAMAJIMA
- I A 14 ^{12}C INDUCED FISSION OF ^{233}U , ^{235}U AND ^{238}U
 Faculty of Science, Osaka University, Ming-Jinn DUH, Naruto TAKAHASHI, Akihiko YOKOYAMA, Hiroshi BABA
 Japan Atomic Energy Research Institute, Sumiko BABA, Kentaro HATA, Yuichiro NAGAME

(17 : 10-18 : 10)

- I A 15 ^3He INDUCED FISSION OF ^{232}Th
 Faculty of Science, Osaka University, Satoshi WAKAMATSU, Tadashi SAITO, Nobuki YOSHIZAKI, Shigeki FURUYA, and Hiroshi BABA
- I A 16 CROSS SECTIONS OF (n, γ) REACTIONS AND PHOTO EMISSION YIELDS OF SEVERAL NUCLIDES
 Research Reactor Institute, Kyoto University, Mutsuo KOYAMA, Shigeru YAMADA, Korin SAI, Jitsuya TAKADA and Rokuji MATSUSHITA

- I A 17 ON-LINE MASS SEPARATION OF THE MONOXIDE IONS IN THE LIGHT RARE-EARTH REGION
Japan Atomic Energy Research Institute, Shinichi ICHIKAWA, Toshiaki SEKINE, Masumi OSHIMA, Hideki IIMURA
Faculty of Science, Osaka University, Naruto TAKAHASHI

(Nuclear Chemistry Group Meeting 18 : 30-20 : 30)

[Activation Analysis]

(9 : 40-11 : 00)

- I B 01 NEW SUBSTOICHIOMETRIC ANALYSIS (1) PRINCIPLES AND FEATURES
NTT Opto-electronics Laboratories,
Toshio SHIGEMATSU
- I B 02 NEW SUBSTOICHIOMETRIC ANALYSIS (2)
DETERMINATION OF BARIUM AND YTTRIUM IN SUPERCONDUCTING OXIDE
NTT Opto-electronics Laboratories,
Toshio SHIGEMATSU, Masaaki KATOH, Koji SHIKANO
- I B 03 ACCURATE AND PRECISE SUBSTOICHIOMETRIC ANALYSIS (3).
DETERMINATION OF YTTRIUM IN SUPERCONDUCTING OXIDE
NTT Opto-electronics Laboratories,
Masaaki KATOH, Toshio SHIGEMATSU, Koji SHIKANO, Hiroki YONEZAWA
- I B 04 ACCURATE AND PRECISE SUBSTOICHIOMETRIC ANALYSIS (4)
DETERMINATION OF OXYGEN IN SUPERCONDUCTING OXIDE
NTT Opto-electronics Laboratories,
Koji SHIKANO, Masaaki KATOH, Toshio SHIGEMATSU, Hiroki YONEZAWA

(11 : 10-12 : 10)

- I B 05 INSTRUMENTAL PHOTON ACTIVATION ANALYSIS OF ENVIRONMENTAL MATERIALS BY INTERNAL STANDARD METHOD COUPLED WITH STANDARD ADDITION METHOD
Laboratory of Nuclear Science, Tohoku University,
Masuo YAGI and Kazuyoshi MASUMOTO
- I B 06 THE INTERNAL STANDARD METHOD COUPLED WITH STANDARD ADDITION METHOD; ITS CHARACTERISTICS AND NEW DEVELOPMENT
Laboratory of Nuclear Science, Tohoku University
Kazuyoshi MASUMOTO and Masuo YAGI

I B 07 INSTRUMENTAL PHOTON ACTIVATION ANALYSIS OF THALLIUM AND URANIUM.

Laboratory of Nuclear Science, Tohoku University,
Kazuyoshi MASUMOTO and Masuo YAGI

(Lunch Time 12 : 10-13 : 20)

(Plenary Lecture PL01 13 : 20-14 : 20)

[Activation Analysis] (Continued)

(14 : 30-15 : 50)

I B 08 BEHAVIOR OF TRACE ELEMENTS IN MOLLUSCS SHELL FORMATION No. 2

Aichi University of Education, Sayoko YOSHIOKA
Tokyo Metropolitan Institute of Technology, Minoru TERAJ

I B 09 DETERMINATION OF SELENIUM AND ZINC IN SERUM BY CERIUM INTERNAL STANDARD NEUTRON ACTIVATION ANALYSIS

Japan Atomic Energy Research Institute, Chushiro YONEZAWA, Michio HOSHI, Masakatsu SAEKI, Enzo TACHIKAWA
The University of Tokyo, Hideki IMAI, Tsuguyoshi SUZUKI
National Institute for Environmental Studies, Michinori KABUTO

I B 10 NEUTRON ACTIVATION ANALYSIS OF GOLD IN NEOGENE GRANITOIDS

College of Science and Engineering, Aoyama Gakuin University, Tsuyoshi YOSHIHARA,
Yuko SAITO, Kan KIMURA
Geological Survey of Japan, Shunso ISHIHARA

I B 11 DETERMINATION OF RARE EARTH ELEMENT IN COAL BY INSTRUMENTAL NEUTRON ACTIVATION ANALYSIS

Atomic Energy Research Laboratory, Musashi Institute of Technology, Yukio NAKANISHI,
Shogo SUZUKI, Shoji HIRAI

(16 : 00-17 : 00)

I B 12 TRACE ELEMENTS IN PLANT-HUMAN SYSTEMS

Tokyo Metropolitan Institute of Technology, Minoru TERAJ
Aichi University of Education, Sayoko YOSHIOKA
Tachikawa College of Tokyo, Tutomu YOSHIDA
Tokyo Metropolitan Agricultural Experiment Station, Tetuo Kato

I B 13 DETERMINATION OF BROMINE AND CHLORINE IN DUST ALONG ROAD BY INSTRUMENTAL NEUTRON ACTIVATION ANALYSIS

Atomic Energy Research Laboratory Musashi Institute of Technology, Yoshinori Endo, Shoji Hirai

- I B 14 NUTRON ACTIVATION ANALYSIS OF GEOCHEMICAL REFERENCE ROCKS
Faculty of Science, Kanazawa Univ., Kanazawa Women's Junior College*
Yutaka MIYAMOTO, Natmi AOTA*, Sakae KOSANDA, Takuji FUKASAWA, Yuji
OZAKI, Akira KUNUGISE, Yasunori HAMAJIMA, Koh SAKAMOTO

(17 : 10-18 : 10)

- I B 15 INSTRUMENTAL NEUTRON ACTIVATION ANALYSIS OF NIES ENVIROMENTAL
REFERENCE MATERIAL
Atomic Energy Research Laboratory, Musashi Institute of Technology, Shohgo SUZUKI,
Kisayo MATUMOTO, Yukiko OKADA, Shoji HIRAI
- I B 16 DETERMINATION OF TRACE URANIUM AND THORIUM IN SEMICONDUCTOR
MATERIALS BY NEUTRON ACTIVATION ANALYSIS
Atomic Energy Research Laboratory, Musashi Institute of Technology, Yukiko OKADA,
Shoji HIRAI
- I B 17 DETERMINATION OF URANIUM AT PPB LEVEL BY FISSION TRACK METHOD
Faculty of Science, Kanazawa University, Takashi NAKANISHI

(Activation Analysis Group Meeting 18 : 30-20 : 30)

[Environmental Radioactivity]

(9 : 40-11 : 00)

- I C 01 DISTRIBUTION OF ^{90}Sr AND ^{137}Cs IN TREE RINGS OF JAPANESE CEDAR
College of Science and Engineering, Aoyama Gakuin University, Yuko SAITO, Shingo
MAEDA, Kan KIMURA
- I C 02 ARTIFICIAL RADIOACTIVE NUCLIDES IN ANTARCTICA
Japan Chemical Analysis Center, Yoshihiro IKEUCHI, Takao MORIMOTO, Takeo HA-
SHIMOTO, Katsumi YOSHIMIZU, Tetsuya TORII
- I C 03 BACKGROUND LEVELS OF NATURAL RADIOACTIVITIES SURROUNDING THE
KAMIOKA PROTON DECAY EXPERIMENT FACILITY
Low-level Radioactivity Laboratory, Kanazawa University
Institute for Cosmic Ray Research, University of Tokyo*
Fukui Prefectural Institute of Public Health**
Masayoshi YAMAMOTO, Teruhiro SUDA*, Masahiro TEJIMA*, Shuichi IGARASHI**,
Kazuhisa KOMURA and Kaoru UENO
- I C 04 DETERMINATION OF LOW LEVEL ^{226}Ra IN ENVIRONMENTAL SAMPLES BY α -
SPECTROMETRY USING ^{225}Ra AS YIELD TRACER
Low Level Radioactivity Laboratory, Faculty of Science, Kanazawa University, Masayoshi
YAMAMOTO, Kazuhisa KOMURA, Kaoru UENO

I C 05 MEASUREMENT OF EMISSION RATE OF RADON IN SOIL AIR FROM THE GROUND SURFACE BY THE OPEN VIAL METHOD

Tokyo Metropolitan University, Kimiko HORIUCHI
Atomic Power Safety Engineering Centre, Yukio MURAKAMI

I C 06 IN SITU INTEGRATING CHEMISORPTION OF RADIONUCLIDE FROM SEA WATER
Japan Chemical Analysis Center, Hideo HIGUCHI, Nobuhiro NONAKA, Takao MORIMOTO

I C 07 DIFFUSION COEFFICIENT OF UNATTACHED RaA(^{218}Po) PARTICLES
Faculty of Education, Shinshu University, Hisakazu MURAMATSU
National Laboratory for High Energy Physics, Kenjiro KONDO, Taichi MIURA

(Lunch Time 12 : 10-13 : 20)

(Plenary Lecture PL01 13 : 20-14 : 20)

[Hot-Atom Chemistry]

(14 : 30-15 : 50)

I C 08 HOT ATOM CHEMISTRY OF COBALT AND ZINC PHTHALOCYANINE MIXED CRYSTALS, CONTINUED

Department of Chemistry, University of Tsukuba, Yuichi OKI, Hitoshi SHOJI, Nagao IKEDA

I C 09 RECOIL BEHAVIOURS OF CENTRAL METAL ATOMS IN METALLOPORPHYRIN DERIVATIVES

Department of Chemistry, University of Tsukuba, Hitoshi SHOJI, Yasushi NUMATA, Roberto BENAVIDES CANTU, and Nagao IKEDA

I C 10 REACTION MECHANISMS OF RECOIL IMPLANTATION INDUCED REACTION : LIGAND EFFECTS

Department of Chemistry, Faculty of Science, Tohoku University, Tsutomu SEKINE, Kenji YOSHIHARA

I C 11 ENERGY DEPENDENCE ON RECOIL IMPLANTATION REACTION

Faculty of Science, Tohoku Univ., Atsushi MIYAKAWA, Tsutomu SEKINE, Kenji YOSHIHARA

(16 : 00-17 : 00)

I C 12 ISOTOPIC AND IRRADIATION-TEMPERATURE EFFECTS IN HOT-ATOM-CHEMICAL BEHAVIOR OF ^{55}Cr AND ^{51}Cr

Institute for Atomic Energy, Rikkyo University, Tatsuo MATSUURA, Hideaki KURIHARA, Teruaki NAGAHARA
Faculty of General Education, Rikkyo University, Kenichi SASAKI

I C 13 CHEMICAL EFFECTS OF β -DECAY IN TRITIUM LABELLED URASIL IN OXGENATED AQUEOUS SOLUTION

Radiation Center of Osaka Prefecture, Takeyoshi ASANO, Reiko KIRITANI, Shinichi FUJITA

I C 14 RECOIL TRITIATION OF LAMINATED POLYETHYLENE TEREPHTALATE BY $^3\text{He}(n, p)^3\text{H}$ REACTION

Radioisotope Centre, The University of Tokyo, Norio NOGAWA, Naotake MORIKAWA
Department of Chemistry, College of Arts and Sciences, Chiba University, Kunio OOHASHI
Japan Atomic Energy Research Institute, Hiromitsu MATSUOKA, Terutomi MOKI, Takashi MORIYA

[Mössbauer Effect]

(17 : 10-17 : 50)

I C 15 INVESTIGATION OF ^{57}Co EC DECAY EFFECTS IN FERROUS SULFATE BY THE γ -X COINCIDENCE MÖSSBAUER METHOD

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

I C 16 STUDY OF TIME-DEPENDENT ^{57}Fe -SPECIES IN ^{57}Co -LABELED $\text{Co}(\text{IO}_3)_2$ USING COINCIDENCE MÖSSBAUER SPECTROSCOPY

Department of Chemistry, Faculty of Science, Tokyo Metropolitan University, Yasuo WATANABE, Kazutoyo ENDO, Hirotoishi SANO

(Hot-Atom Chemistry Group Meeting 18 : 30-20 : 30)

Wednesday, October 14

PLENARY LECTURE 13 : 20-14 : 20

P L 02 THE RECENT SITUATION OF ENVIRONMENTAL RADIOACTIVITY IN EUROPE
Y. NISHIWAKI (IAEA, Univ. of Vienna, Kinki Univ.)

Lecture Session

[Nuclear Reaction]

(9 : 00-10 : 00)

- 2 A 01 STUDY ON CHARGE DISPERSION OF FISSION PRODUCTS BY USE OF IGISOL (1)
Faculty of Science, Niigata University, Hisaaki KUDO, Yuzo HORIKOSHI, Masashi TANIGAWA and Tetsuo HASHIMOTO
Tohoku University, Cyclotron Radioisotope Center, Manabu FUJIOKA, Tsutomu SHINOZUKA and Kazuhiro TAGUCHI
- 2 A 02 STUDY ON CHARGE DISPERSION OF FISSION PRODUCTS BY USE OF IGISOL (2)
Faculty of Science, Niigata University, Yuzo HORIKOSHI, Hisaaki KUDO, Masashi TANIGAWA and Tetsuo HASHIMOTO
Tohoku University, Cyclotron Radioisotope Center, Manabu FUJIOKA, Tsutomu SHINOZUKA and Kazuhiro TAGUCHI
- 2 A 03 PRODUCTION CROSS SECTIONS OF ^{10}Be FROM NITROGEN WITH PSEUDO-MONOENERGETIC NEUTRONS UP TO $E_n = 38$ MeV : IMPLICATIONS FOR PRODUCTION RATE IN THE ATMOSPHERE
Inst. for Nuclear Study, Research Center for Nuclear Science and Technology¹ and Faculty of Science², Univ. of Tokyo, College of Humanities and Sciences, Nihon University³, Mineo IMAMURA, Seiichi SHIBATA, Shingo SATO, Koichi KOBAYASHI¹, Kunio YOSHIDA², Hiroshi YAMASHITA², Hisao NAGAI³
Faculty of Science, Tokyo Metropolitan Univ. Takayuki KOBAYASHI

[Activation Analysis]

(10 : 10-11 : 10)

2 A 04 AMS MEASUREMENTS OF Be-10 DEPTH PROFILES IN LUNAR SURFACE ROCK-
REEVALUATION OF SOLAR COSMIC-RAY SPECTRUM FOR PROTON IN THE LAST
10⁷ YEARS

College of Humanities and Sciences, Nihon University, Hisao NAGAI, Masatake HONDA
Institute for Nuclear Study¹, Research Center for Nuclear Science and Technology² and
Faculty of Science³, University of Tokyo, Mineo IMAMURA¹, Koichi KOBAYASHI², Kunio
YOSHIDA³, Hiroshi YAMASHITA³

Department of Chemistry, University of California, San Diego, Kunihiko NISHIIZUMI,
Candy KOHL, James ARNOLD

Los Alamos National Laboratory, Robert REEDY

2 A 05 ALPHA PARTICLE RESONANCE ELASTIC SCATTERING ANALYSIS OF LIGHT
ELEMENTS

NTT Opto-electronics Laboratories, Hiroki YONEZAWA, Toshio SHIGEMATSU

2 A 06 ANALYSIS FOR CARBON AND OXYGEN BY ALPHA PARTICLE RESONANCE ELAS-
TIC SCATTERING ANALYSIS

NTT Opto-electronics Laboratories, Hiroki YONEZAWA, Toshio SHIGEMATSU

(11 : 20-12 : 20)

2 A 07 ULTRASENSITIVE MEASUREMENTS OF RADIOACTIVE NUCLIDES BY TANDEM
ACCELERATOR (7)

Faculty of Science, Institute for Nuclear Study¹, Nuclear Science and Technology², Univer-
sity of Tokyo, Kunio YOSHIDA, Mineo IMAMURA¹, Koichi KOBAYASHI², Hiroshi
YAMASHITA

College of Humanities and Science, Nihon University, Hisao NAGAI, Masatake HONDA
Kyoritsu College of Pharmacy, Hideki YOSHIKAWA

Faculty of Science, Tokyo Metropolitan University, Takayuki KOBAYASHI

2 A 08 CYCLIC ACTIVATION ANALYSIS WITH 14-MeV NEUTRONS

Atomic Energy Research Institute, Kinki University, Yoshihide KONDO

2 A 09 SIMULTANEOUS DETERMINATION OF CADMIUM, INDIUM AND TIN IN STAN-
DARD REFERENCE MATERIALS BY SUBSTOICHIOMETRIC RADIOACTIVATION
ANALYSIS

NTT Electrical Communications Laboratories, Kenji KOBAYASHI

(Lunch Time 12 : 20-13 : 20)

(Plenary Lecture PL02 13 : 20-14 : 20)

(Poster Session 14 : 30-15 : 50)

[Activation Analysis] (Continued)

(16 : 00-17 : 40)

- 2 A 10 RAPID DETERMINATION OF TRACE INDIUM IN SILICATE SAMPLES BY EPITHERMAL NEUTRON ACTIVATION ANALYSIS
Faculty of General Studies, Gunma University, Mitsuru EBIHARA
Faculty of Engineering, Gunma University, Akihiko NEMOTO, Hideo AKAIWA
- 2 A 11 EPITHERMAL NEUTRON ACTIVATION ANALYSIS OF RUTHENIUM USING Ru-105
Institute for Atomic Energy, Rikkyo University, Kenji TOMURA
Faculty of Science, Rikkyo University, Toshiya HAYASHI, Tatsujiro ISHIMORI
- 2 A 12 PROBLEMS OF NEUTRON ACTIVATION ANALYSIS OF HALOGEN ELEMENTS
Research Reactor Institute, Kyoto University, Korin SAI, Jitsuya TAKADA, Rokuji MATSUSHITA and Mutsuo KOYAMA
- 2 A 13 INTENSITY RATIO OF LX-RAYS IN THE NIOBIUM COMPOUNDS
Faculty of Science, Tohoku University, Junji IHARA, Gunzo IZAWA, Takashi OMORI, Kenji YOSHIHARA
- 2 A 14 FORMATION OF AEROSOLS IN HIGH ENERGY ACCELERATOR TUNNELS (2)
National Laboratory for High Energy Physics, Yukio KANDA, Masafumi TAIRA, Kenjiro KONDO, Taichi MIURA

[Tritium]

(9 : 00-10 : 00)

- 2 B 01 RELATIONSHIP OF ENRICHMENT FACTORS BETWEEN DEUTERIUM AND TRITIUM IN THE ELECTROLYTIC ENRICHMENT
Faculty of Science, Niigata University, Tetsuo HASHIMOTO, Masafumi NONAKA, Junichi SHIGETOMI and Yuji SAKAI
- 2 B 02 TRITIUM CONCENTRATION IN VARIOUS ORGANS OF JAPANESE BODIES
Radioisotope Research Center, Kyoto University, Tôru AOKI and Norio KURIHARA
Faculty of Medicine, Kyoto University, Keichi YAMAMOTO
Research Reactor Institute, Kyoto University, Yowri UJENO
- 2 B 03 TRITIUM CONCENTRATION OF DIFFERENT CHEMICAL SPECIES IN THE ATMOSPHERE
Faculty of Engineering, Kyushu University, Tomio OKAI
Faculty of Science, Kyushu University, Mika HATSUMURA, and Yoshimasa TAKASHIMA

(10 : 10-11 : 10)

- 2 B 04 TRITIUM CONCENTRATIONS IN DEEP SEA WATERS
Faculty of Science, Kyushu University, Toshio KAJI, Noriyuki MOMOSHIMA, and Yoshimasa TAKASHIMA
- 2 B 05 TRITIUM METROLOGY BY PHOTON DETECTION-PHOTON RADIATOR.
Faculty of Engineering, Kumamoto University, Toshiaki KISHIKAWA

2 B 06 STUDIES ON THE RELATIONSHIP BETWEEN ENVIRONMENTAL TRITIUM AND VEGETATION
Faculty of Science, Kyushu University, Noriyuki MOMOSHIMA, Fumiyoshi NAGATANI, Naomi YANASE, Yoshimasa TAKASHIMA

(11 : 20-12 : 20)

2 B 07 MOLECULAR TRITIUM UPTAKE IN SOIL
Faculty of Science, Kyushu University, Noriyuki MOMOSHIMA, Yoshihiko NAGASATO, Yoshimasa TAKASHIMA

2 B 08 SIMPLE METHOD FOR DETERMINATION OF ORGANICALLY BOUND TRITIUM IN ENVIRONMENTAL SAMPLES
Environmental Health, National Institute of Radiological Sciences, Yoshikazu INOUE, Tetsuo IWAKURA
Radiation Hygiene Heilongjiang Provincial Health and Anti-epidemic Station, Hambin, People's Republic of China, Jin Shixia

2 B 09 DETERMINATION OF TRITIUM IN TREE
School of Pharmacy, Hokuriku University, Yoshimune YAMADA, Noriki KIRIYAMA
Low Level Radioactivity Laboratory, Kanazawa University, Mikio ITOH, Kaoru UENO

(Lunch Time 12 : 20-13 : 20)

(Plenary Lecture PL02 13 : 20-14 : 20)

(Poster Session 14 : 30-15 : 50)

[Tritium] (Continued) [Solution Chemistry]

(16 : 00-17 : 40)

2 B 10 CHEMICAL FORM OF TRITIUM IN AIR AROUND KEK 12 GeV PS BEAM LINE
National Laboratory for High Energy Physics, Taichi MIURA, Kenjiro KONDO, Yukio KANDA, Masafumi TAIRA

2 B 11 ADSORPTION AND DESORPTION BEHAVIOR OF TRITIUM ON ALUMINUM SURFACE
Department of Chemistry, Japan Atomic Energy Research Institute, Nobuyuki MASAKI, Takakuni HIRABAYASHI, Masakatsu SAEKI

2 B 12 SPECIFIC ACTIVITY MEASUREMENTS OF ^{99m}Tc GENERATOR ELUENTS
The School of Allied Medical Professions, Kanazawa University, Ryohei AMANO

2 B 13 SOLVENT EXTRACTION OF ⁹⁹Tc WITH ACETYLACETONE AND THIOUREA
Faculty of Science, Tohoku University, Kazuyuki HASHIMOTO, Takashi OMORI, Kenji YOSHIHARA

- 2 B 14 CATION EXCHANGE STUDY OF BISMUTH IN TRACER CONCENTRATION (II)
Radiochemistry Research Laboratory, Faculty of Science, Shizuoka University, Hideo
SUGANUMA, Kouji ONO, and Ituhachiro HATAYE.

[Mössbauer Effect]

(9 : 00-10 : 00)

- 2 C 01 EMISSION MÖSSBAUER SPECTRA OF ^{151}Gd ADSORBED ON YIG
The Institute of Physical and Chemical Research, Shizuko AMBE, Fumitoshi AMBE, Takuya
OKADA, Hisashi SEKIZAWA
- 2 C 02 IN SITU AND EX SITU EMISSION MÖSSBAUER SPECTRA OF $^{57}\text{Co}^{2+}$ AND $^{119}\text{Sb}^{5+}$
ADSORBED ON $\gamma\text{-Fe}_2\text{O}_3$ AND NiFe_2O_4 SURFACES
The Institute of Physical and Chemical Research (RIKEN), Fumitoshi AMBE, Shizuko
AMBE, and Takuya OKADA
- 2 C 03 MEASUREMENT OF MÖSSBAUER SPECTRA OF Sb(III) COMPLEXES IN FROZEN
SOLUTION AND POLYMETHYL METHACRYLATE MATRIX
Faculty of Science, Toho Univ., Masashi TAKAHASHI, Ryuhichi OYAMA, Masuo TA-
KEDA

(10 : 10-11 : 10)

- 2 C 04 MÖSSBAUER STUDY OF MATRIX-ISOLATED ORGANOTIN COMPOUNDS
Faculty of Science, The University of Tokyo, Chie OBAYASHI, Takeshi TOMINAGA
Faculty of Science, Science University of Tokyo, Haruo SATO
- 2 C 05 MÖSSBAUER EFFECT OF TIN IN THE FERRITE
Faculty of Science, Hiroshima University, Hiroyuki OHSHITA, Koji YAMADA, Sumio
ICHIBA
- 2 C 06 MÖSSBAUER SPECTROSCOPIC STUDIES OF RUTHENIUM COMPOUNDS (II)
Faculty of Science, Tokyo Metropolitan Univ., Yoshio KOBAYASHI, Motomi KATADA
and Hirotoshi SANO
The Institute of Physical and Chemical Research, Takuya OKADA, Kichizou ASAI, Nobuhi-
ko SAKAI, Shizuko AMBE and Fumitoshi AMBE

(11 : 20-12 : 20)

- 2 C 07 MÖSSBAUER SPECTROSCOPIC CHARACTERIZATION OF SUSPENDED SOLIDS IN
RIVER WATER
Department of Environmental Chemistry and Engineering, Tokyo Institute of Technology,
Motoyuki MATSUO, Takaaki KOBAYASHI

2 C 08 MÖSSBAUER SPECTROSCOPIC STUDIES OF THE COMPOUNDS OF THE TYPE $(C_n H_{2n+1} NH_3)_3 Fe(CN)_6$
Faculty of Science, Tokyo Metropolitan University, Motomi KATADA, Naoya SAKAMOTO, Shinji NAKAI, and Hirotooshi SANO

2 C 09 MÖSSBAUER SPECTROSCOPIC STUDIES OF CRYSTALLINE TIN(IV) HYDROGENE PHOSPHATE-ALKYLAMINE INTERCALATION COMPOUNDS(II)
Faculty of Science, Tokyo Metropolitan University, Shinji NAKAI, Motomi KATADA, and Hirotooshi SANO

(Lunch Time 12 : 20-13 : 20)

(Plenary Lecture PL02 13 : 20-14 : 20)

(Poster Session 14 : 30-15 : 50)

[Mössbauer Effect] (Continued)

(16 : 00-17 : 40)

2 C 10 CEMS STUDY OF OXIDE ON IRON FOIL AT LOW TEMPERATURES
Department of Physics, Shiga University of Medical Science, Takayuki KOBAYASHI, Kazuko FUKUMURA, Tomoko MAKITA
Radioisotope Research Center, Kyoto University, Yasuhito ISOZUMI

2 C 11 MÖSSBAUER SPECTRA AND DTA OF SEVERAL GALLATE GLASSES CONTAINING A SMALL AMOUNT OF IRON AS A MÖSSBAUER PROBE
Faculty of Science, Kyushu University, Tetsuaki NISHIDA, Setsuko SARUWATARI, and Yoshimasa TAKASHIMA

2 C 12 STUDY ON THE STRUCTURE AND PHYSICAL PROPERTIES OF SEMICONDUCTING VANADATE GLASSES HAVING CHAIN, LAYER, AND NETWORK STRUCTURES
Faculty of Science, Kyushu University, Tetsuaki NISHIDA, Setsuko SARUWATARI, and Yoshimasa TAKASHIMA

2 C 13 MÖSSBAUER STUDY OF MIXED OXIDES OF TELLURIUM
Faculty of Science, Hiroshima University Hirotoomo KAGEOKA, Koji YAMADA, Sumio ICHIBA
Research Reactor Institute, Kyoto University, Hiroshi SAKAI

2 C 14 ^{125}Te MÖSSBAUER EFFECT OF TELLURIUM(IV) OXIDE GLASSES
Research Reactor Institute, Kyoto University, Hiroshi SAKAI and Yutaka MAEDA

Poster Session 14 : 30-15 : 50

- P 01 CHARACTERISTICS OF THE OPERATION AND IRRADIATION FIELD OF THE PNEUMATIC FACILITY INSTALLED IN THE GRAPHITE THERMAL COLUMN OF KUR
 Research Reactor Institute, Kyoto University, Rokuji MATSUSHITA, Jitsuya TAKADA, Sataro NISHIKAWA, Hitomi TSUJIMOTO, Yukihiko NAKANO and Mutsuo KOYAMA
- P 02 NEUTRON ACTIVATION ANALYSIS OF TRACE ELEMENTS IN LAND PLANTS ON Mt. ROKKO
 Public Health Research Institute of Kobe City, Sakingo IMAI, Motoho MUROI, Akihiko HASEGAWA, Teruo KAMIKI
 The Environmental Science Institute of Hyogo Prefecture, Tomiho OZAKI
 The Municipal Botanic Garden of Kobe City, Shinya MIYAKE
 Research Reactor Institute, Kyoto University, Jitsuya TAKADA, Mutsuo KOYAMA
- P 03 DETERMINATION OF TRANSITION ELEMENTS IN HIGH-PURITY RAW MATERIALS USED FOR OPTICAL FIBERS BY NEUTRON ACTIVATION ANALYSIS
 NTT Electrical Communications Laboratories, Kenji KOBAYASHI
- P 04 POSSIBILITY OF THE PRESENCE OF METALS IN DNA BY ACTIVATION ANALYSIS AND DNA DAMAGE BY TRITIATED WATER
 Faculty of Science, Shizuoka University, Institute for Atomic Energy, Rikkyo University*, Tatsuya HISADA, Hiroe YOSHIOKA, Koichi YOSHINAGA, Kunihiko HASEGAWA, Tatsuo MATSUURA*
- P 05 MONITOR REACTIONS FOR PHOTONUCLEAR REACTION STUDY
 Fac. of Science, Kanazawa Univ., Inst. for Nucl. Study, Univ. Tokyo*, Ottemongakuin Univ.**, Yasunori HAMAJIMA, Kazuhiko OSADA, Takuji FUKASAWA, Manabu YOSIDA, Koh SAKAMOTO, Seiichi SHIBATA*, Ichiroh FUJIWARA**
- P 06 ANALYSIS OF TRACE ELEMENTS IN BIOLOGICAL SAMPLES BY PIXE TECHNIQUE
 National Institute of Radiological Sciences, Masae YUKAWA and Kensuke KITAO
 Akita University, Shunichi HISAMATSU and Yukio TAKIZAWA
- P 07 DEVELOPMENT OF RAPID CHEMICAL SEPARATION SYSTEM FOR TRANS-PLUTONIUM ELEMENTS
 Faculty of Science, Tokyo Metropolitan University, Keisuke SUEKI, Kazuaki TSUKADA, Yuichi HATSUKAWA, Kazutoyo ENDO, Hiromichi NAKAHARA
- P 08 A COMPARISON OF ACTIVITY DISTRIBUTIONS IN THE AIR-BORNE FROM THE CHERNOBYL ACCIDENT WITH AN ESTIMATED CORE INVENTORY OF THE REACTOR
 Japan Atomic Energy Research Institute, Toshio SUZUKI, Hiroshi OKASHITA, Hirokazu UMEZAWA
- P 09 ADSORPTION OF NO-CARRIER-ADDED Sb(V)-119 ONTO METALLIC OXIDE SURFACES FROM AQUEOUS SOLUTIONS
 The Institute of Physical and Chemical Research, Shizuko AMBE

- P 10 SYNTHESIS OF (2-¹⁴C,5-³H)URACIL USING BROMINE AND TRITIUM GAS
Radiation Center of Osaka Prefecture; Faculty of Agriculture, Kinki University*, Takeyoshi ASANO, Reiko KIRITANI, Shinichi FUJITA, Tetsuro KAWANISHI*
- P 11 MEASUREMENTS OF THE PROBABILITY FOR PION CAPTURE BY HYDROGEN IN GAS MIXTURE
Faculty of Science, Nagoya University, Atsushi SHINOHARA
Institute of Atomic Energy, Kyoto University, Nobutsugu IMANISHI, Yuka TAKEUCHI, Katsuya TOYODA
National Laboratory for High Energy Physics, Yoshio YOSHIMURA
- P 12 CHEMICAL REACTION STUDIED BY MUON SPIN RESONANCE METHODS
Nuclear Engineering Research Lab. Univ. of Tokyo, Toshiyuki AZUMA, Yoneho TABATA
Research Center for Nuclear Sci. & Tech. Univ. of Tokyo, Yasuo ITO
Meson Science Lab. Univ. of Tokyo, Kusuo NISHIYAMA, Kanetada NAGAMINE
- P 13 ¹²¹Sb MÖSSBAUER SPECTROSCOPIC STUDIES ON RADIOLYSIS OF ANTIMONY(III)-CARBOXYLIC ACID COMPLEXES
Faculty of Science, Toho University, Masuo TAKEDA, Yoshiki KAJITANI, Yoshinobu KAWASE, Hidenori IKEZAWA, Masashi TAKAHASHI
- P 14 ⁵⁷Fe MÖSSBAUER SPECTRA OF GEOLOGICAL AND ARCHEOLOGICAL SAMPLES FROM THE XINJIANG UIGHUR AUTONOMOUS REGION OF CHINA (A FURTHER STUDY)
The Institute of Physical and Chemical Research (RIKEN) and the Xinjiang Institute of Biology, Pedology and Psammology, Fumitoshi AMBE, Shizuko AMBE, Hideo YABUKI, Zi-Wei HUANG, and Tadashi NOZAKI
- P 15 HEAVY-ION PROBE BACKSCATTERING ANALYSIS APPLIED TO THE STUDY FOR PREPARATION OF SELF-SUPPORTING CARBON FILM
The Institute of Physical and Chemical Research, Michi ARATANI, Minoru YANOKURA
Institute for Nuclear Study, The University of Tokyo, Isao SUGAI
Department of Electric Engineering, Yamanashi University, Hajime KATO

Thursday, October 15

Lecture Session

[Actinide]

(9 : 00-10 : 00)

- 3 A 01 THE FORMATION AND RADIOLYSIS OF At₂ MOLECULES
Faculty of Science, Osaka University, Naruto TAKAHASHI, Naoki YUKAWA and Hiroshi BABA
- 3 A 02 FABRICATION OF INTERNAL CONVERSION ELECTRON SPECTROMETER AND ITS APPLICATION TO THE DETERMINATION OF Pu ISOTOPIC RATIO
Institute for Materials Research, Tohoku University, Yoshinobu SHIOKAWA, Katsuhiko SUZUKI
Takizawa Laboratory, Japan Radioisotope Association, Shin SUZUKI
- 3 A 03 SYNERGISTIC EXTRACTION OF AMERICIUM(III) WITH PYRAZOLONE DERIVATIVES
Faculty of Engineering, Tohoku University, Yasushi INOUE, Osamu TOCHIYAMA, Tomoko FUJIHIRA

(10 : 10-11 : 10)

INVITED LECTURE

- 3 A 04 SOLID STATE CHEMISTRY OF THE ACTINIDE ELEMENTS
3 A 05 Lester R. Morss(Argonne National Laboratory, USA)
- 3 A 06 SEPARATION AND DETERMINATION OF ACTINIDE ELEMENTS USING CO-PRECIPIATION WITH BISMUTH PHOSPHATE
Japan Atomic Energy Research Institute, Takaumi KIMURA

(11 : 20-12 : 20)

- 3 A 07 STUDY ON RAPID CHEMICAL SEPARATION OF LANTHANIDE AND ACTINIDE ELEMENTS WITH ANION EXCHANGE METHOD
Faculty of Science, Tokyo Metropolitan University, Kazuaki TSUKADA, Keisuke SUEKI, Kazutoyo ENDO, Hiromichi NAKAHARA
- 3 A 08 A STUDY OF SOLUBILITY OF Th IN SYNTHETIC GROUND WATER BY ULTRAFILTRATION
Faculty of Science, Kanazawa University, Takashi NAKANISHI, Katsuhiko HAMA
- 3 A 09 ²³⁴U/²³⁸U ACTIVITY RATIOS OF THE CARBONATITES FROM SALITRE, BRAZIL
Geological Survey of Japan, Yutaka KANAI, Masaharu KAMITANI

[Thermoluminescence]

(9 : 00-10 : 00)

- 3 B 01 CHANGES OF THERMOLUMINESCENCE PROPERTIES BASED ON IMPURITY CONTENTS IN NATURAL AND SYNTHETIC QUARTZES
Faculty of Science, Niigata University, Tetsuo HASHIMOTO, Kyoichi YOKOSAKA, Tomoaki KUBOTA, Masahiro TORAZAWA and Hisanao HABUKI
- 3 B 02 GEOCHEMICAL APPLICATION OF THERMOLUMINESCENCE COLOR IMAGES (TLCIs) TO COASTAL AND DUNE SANDS
Faculty of Science, Niigata University, Tetsuo HASHIMOTO, Kyoichi YOKOSAKA, Tomoaki KUBOTA, Masahiro TORAZAWA and Hisanao HABUKI
- 3 B 03 THERMOLUMINESCENCE DATING OF STRATA CONTAINED ELEPHAS NAUMANNI FOSSILS
Faculty of Science, Niigata University, Tetsuo HASHIMOTO, Hisanao HABUKI, Tomoaki KUBOTA, Masahiro TORAZAWA and Kyoichi YOKOSAKA

[Liquid Scintillation]

(10 : 10-11 : 10)

- 3 B 04 DEVELOPMENT OF EMERGENCY PERSONNEL DOSIMETER WITH ELECTRON SPIN RESONANCE EQUIPMENT
Div. of Phys., National Institute of Radiological Sciences, Toshiyuki NAKAJIMA
- 3 B 05 ABSOLUTE DETERMINATION OF RADIOACTIVITY RELATED TO THORIUM SERIES BY TIME INTERVAL ANALYSIS
Faculty of Science, Niigata University, Tetsuo HASHIMOTO, Yuji SAKAI, Junichi SHIGETOMI and Masafumi NONAKA
- 3 B 06 DETERMINATION OF ^{222}Rn BY AIR LUMINESCENCE METHOD
Kyoritsu College of Pharmacy, Yoshio HOMMA, Yuko MURASE
Division of Radiobiology, Research Center of Medical Science, The Jikei University School of Medicine, Makoto TAKIUE

(11 : 20-12 : 20)

- 3 B 07 CHERENKOV RADIATION OF ^{125}Sb
Faculty of Science, Shizuoka University, Kunihiko HASEGAWA, Takako ITOH
- 3 B 08 MEASUREMENTS OF CHERENKOV RADIATION-COUNTING EFFICIENCY
Faculty of Science, Shizuoka University, Kenji SATOH, Kunihiko HASEGAWA
- 3 B 09 ANALYTICAL MEASUREMENT OF DUAL-LABELED SAMPLE BY CHERENKOV COUNTING TECHNIQUE
Jikei University School of Medicine, Makoto TAKIUE
Tokyo Medical and Dental University, Haruo FUJII

[Technetium]

(9 : 00-10 : 00)

- 3 C 01 RADIOCHEMICAL DETERMINATION OF ^{99}Tc IN ENVIRONMENTAL WATER SAMPLES
Kyushu Environmental Evaluation Association, Toshiyuki UMATA, Nobuaki MATSUOKA, Masaki OKAMURA, Naosuke SHIRAISHI
Faculty of Science, Kyushu University, Noriyuki MOMOSHIMA, Yoshimasa TAKASHIMA
- 3 C 02 DETERMINATION OF ^{99}Tc IN ENVIRONMENTAL SOILS
Kyushu Environmental Evaluation Association, Masaki OKAMURA, Nobuaki MATSUOKA, Toshiyuki UMATA, Naosuke SHIRAISHI
Faculty of Science, Kyushu University, Noriyuki MOMOSHIMA, Yoshimasa TAKASHIMA
- 3 C 03 TECHNETIUM IN SEAWATER
NIRS, Shigeki HIRANO, Mitsue MATSUBA and Taku KOYANAGI

[Meson Chemistry]

(10 : 10-11 : 10)

- 3 C 04 MUON TRANSFER FROM HYDROGEN TO HELIUM
Faculty of Engineering, Univ. of Tokyo: Yoshihiro HIRATA, Yoneho TABATA
The Institute of Physical and Chemical Research: Teiichiro MATSUZAKI, Katsuhiko ISHIDA
Faculty of Science, Univ. of Tokyo: Kanetada NAGAMINE
Research Center for Nuclear Sci. and Tech., Univ. of Tokyo: Yasuo ITO
- 3 C 05 MESONIC ATOMS AND MOLECULAR STRUCTURE-HYDROGEN CONTAINING MOLECULE II-
Faculty of Science, Nagoya University, Atsushi SHINOHARA
Institute of Atomic Energy, Kyoto University, Nobutsugu IMANISHI, Yuka TAKEUCHI, Katsuya TOYODA, Shinichi MIYAMOTO
Faculty of Science, Tohoku University, Harumi KAJI
National Laboratory for High Energy Physics, Yoshio YOSHIMURA
- 3 C 06 CHEMICAL STATES OF MUONS STOPPED IN VARIOUS METAL ACETYLACETONATES
Faculty of Science, The University of Tokyo, M. Kenya KUBO, Yoichi SAKAI, Takeshi TOMINAGA, Kusuo NISHIYAMA, and Kanetada NAGAMINE

(11 : 20-12 : 00)

3 C 07 MUON SPIN RESONANCE STUDY OF POSITIVE MUONS IN
TRIS(ACETYLACETONATO) METAL(III) COMPLEXES

Faculty of Science, The University of Tokyo, M. Kenya KUBO, Yoichi SAKAI, Takeshi
TOMINAGA, Kusuo NISHIYAMA, and Kanetada NAGAMINE

3 C 08 BEHAVIOR AND CHEMICAL STATES OF POSITIVE MUONS IN COBALT(III) COM-
PLEXES

Faculty of Science, The University of Tokyo, Yoichi SAKAI, Michael Kenya KUBO, Takeshi
TOMINAGA, Kusuo NISHIYAMA, and Kanetada NAGAMINE

