Contents

Part I Fundamental Aspects of EXAFS and XANES	
Single Scattering Theory of X-Ray Absorption. By W.L. Schaich	2
Band Structure Approach to the X-Ray Spectra of Metals By J.E. Müller (With 2 Figures)	7
Self-Consistent Density Functional Methods in Photoabsorption By A. Zangwill (With 5 Figures)	13
Adiabatic Versus Sudden Turn-On of Multielectron Effects in X-Ray Absorption By Ke Zhang, E.A. Stern, and J.J. Rehr (With 2 Figures)	18
Many-Body Effects on EXAFS Amplitudes. By K. Kim and E.A. Stern (With 1 Figure)	20
XANES and EXAFS Measurements on Pd ₂ Si : One-Electron or Many Body Effects? By M. De Crescenzi, E. Colavita, U. Del Pennino, P. Sassaroli, S. Valeri, C. Rinaldi, L. Sorba, and S. Nannarone (With 4 Figures)	23
Effect of Intermediate Range Order on the Lineshape of the Ge K Edge By M.G. Proietti, L. Incoccia, S. Mobilio, A. Gargano, and F. Evangelisti (With 3 Figures)	26
Debye-Waller-Factor Modification in EXAFS with "Focussed" Multiple Scattering By N. Alberding and E.D. Crozier (With 3 Figures)	30
Theory of X-Ray Absorption Edge Spectra. By S. Doniach, M. Berding, T. Smith, and K.O. Hodgson (With 3 Figures)	33
Distance Dependence of Continuum and Bound State of Excitonic Resonances in X-Ray Absorption Near Edge Structure (XANES). By C.R. Natoli	38
Molecular Bond Length Determination from σ Resonances in Near Edge Spectra By A.P. Hitchcock, F. Sette, and J. Stöhr (With 3 Figures)	43
Calculation of the Near Edge X-Ray Absorption Structure of Adsorbates by the Scattered Wave X_{α} Method. By J.A. Horsley (With 2 Figures)	46
Experimental Study of the L_3 , L_2 , and L_1 White Line Intensities in Rare-Earth Compounds. By J. Wong, S.H. Lamson, and K.J. Rao (With 5 Figures)	49
XANES of Palladium Rare Earth Intermetallics (RPd ₃): Determination of Hybridization and Mixing of 4f-Orbitals. By A. Marcelli, A. Bianconi, I. Davoli, and S. Stizza (With 2 Figures)	52



VII

Shake-Down Phenomena and Polarized XANES Spectra of Cu(II) Complexes By N. Kosugi, T. Yokoyama, and H. Kuroda (With 2 Figures)	55
Polarized Cu K-Edge Studies. By T.A. Smith, J.E. Penner-Hahn, K.O. Hodgson, M.A. Berding, and S. Doniach (With 4 Figures)	58
Near Edge Structure of Highly Ionized Manganese in Mn-doped Chevrel Compounds By F.C. Brown, W.M. Miller, D.M. Ginsberg, and K. Stolt (Withdrawn)	61
Molybdenum L _{II,III} Edge Studies. By B. Hedman, J.E. Penner-Hahn, and K.O. Hodgson (With 3 Figures)	64
The Role of Two-Electron Threshold Resonances in Si Near Edge Structure By M.H. Hecht, F.J. Grunthaner, P. Pianetta, H.Y. Cho, M.L. Shek, and P. Mahowald (With 4 Figures)	67
Polarization Dependent Near-Edge X-Ray Absorption Fine Structure of Single Crystal Graphite. By R.A.Rosenberg, P.J. Love, and V. Rehn (With 3 Figures) .	70
Part II EXAFS Data Analysis	
EXAFS Studies of Anharmonic Solids. By J.M. Tranquada (With 2 Figures)	74
The Selection of E _O for EXAFS Spectra of Disordered Systems By D.V. Baxter (With 1 Figure)	77
Possibility of Bond-Length Determination in EXAFS Without the Use of Model Compounds or Calculated Phases. By F.G. Halaka, J.J. Boland, and J.D. Baldeschwieler	80
Coordination Number Determinations of Gold Complexes by EXAFS Spectroscopy By M.K. Eidsness and R.C. Elder (With 1 Figure)	83
EXAFS of a-Ni $_{\rm X}$ As $_{\rm 1-X}$ and the Determination of Charge Transfer. By G.P. Tebby, A.J. Bourdillon, R.T. Phillips, and E.A. Marseglia (With 4 Figures)	੪6
The Phase and Amplitude Corrected Fourier Transform for the Detection of Small Signals. By J.B.A.D. van Zon, D.C. Koningsberger, R. Prins, and D.E. Sayers (With 2 Figures)	89
K Edges EXAFS in Crystalline and Amorphous Germanium. By V.D. Chafekar and S.C. Sen (With 2 Figures)	92
Part III Biological Systems	
EXAFS and XANES Studies of Fe and Zn in Horse Spleen Ferritin. By E.C. Theil, D.E. Sayers, A.N. Mansour, F.J. Rennick, and C. Thompson (With 3 Figures)	96
EXAFS Studies on the c-Heme Environment in Native and Chemically Modified Cytochromes. By A. Colosimo, F.A. Bassi, and S. Mobilio (With 3 Figures)	101
Structural Characterization of 3Fe Clusters in Fe-S Proteins by EXAFS By R.A. Scott, J.E. Penner-Hahn, K.O. Hodgson, H. Beinert, and C.D. Stout (With 2 Figures)	105

Copper X-Ray Absorption Spectroscopy of Cytochrome <u>c</u> Oxidase. By R.A. Scott, J.R. Schwartz, and S.P. Cramer (With 3 Figures)	111
Edge and EXAFS Studies of Cytochrome Oxidase. By L. Powers and B. Chance (With 6 Figures)	117
EXAFS Studies of Non-Blue Copper Proteins: Superoxide Dimutase, Dopamine-Monooxygenase and Monoamine Oxidase. By N.J. Blackburn, S.S. Hasnain, and P.F. Knowles (With 2 Figures)	124
Light-Induced Changes in X-Ray Absorption (K-Edge) Energies of Manganese in Photosynthetic Membranes. By D.B. Goodin, V.K. Yachandra, R. Guiles, R.D. Britt, A. McDermott, K. Sauer, and M.P. Klein (With 4 Figures)	130
EXAFS Investigations of Zinc in 5-Aminolevulinic Acid Dehydratase By E.M. Wardell, C.D. Garner, M. Schlösser, D. Beyersmann, and S.S. Hasnain (With 2 Figures)	136
Influence of Phosphoproteins on Calcification. By J.C. Irlam, D.W.L. Hukins, C. Holt, and S.S. Hasnain (With 2 Figures)	139
Structural Study of Arthropathic Deposits. By J. Harris, S.S. Hasnain, and J.S. Shah (With 2 Figures)	142
Environment of Calcium in Biological Calcium Phosphates By S.S. Hasnain (With 4 Figures)	145
Examination of Rhodium Carboxylate Anti-Tumor Agents Complexed with Nucleosides by EXAFS Spectroscopy. By N. Alberding, N. Farrell, and E.D. Crozier (With 2 Figures)	151
Limitations to Time Resolution of X-Ray Absorption Spectroscopy By B. Chance (With 3 Figures)	154
An Integrating Method of Time-Resolved EXAFS Measurement By H.W. Huang (With 4 Figures)	158
O ₂ and CO Bonding Geometry in Heme-Proteins in Solution Investigated by XANES By A. Congiu-Castellano, A. Bianconi, M. Dell'Ariccia, A. Giovannelli, E. Burattini, and P.J. Durham (With 3 Figures)	164
XANES: One Electron Multiple Scattering Resonances and Splitting of Final State Configurations at Threshold. By A. Bianconi (With 8 Figures)	167
Part IV Catalytic Systems and Small Metal Clusters	
EXAFS Studies of Supported Bimetallic Cluster Catalysts. By G.H. Via, G. Meitzner, J.H. Sinfelt, R.G. Greegor, and F.W. Lytle	176
Co-Mo Hydrodesulfurization Catalysts Studied by EXAFS. By B.S. Clausen, H. Topsøe, R. Candia, and B. Lengeler (With 3 Figures)	181
In Situ EXAFS of $CoMo/\gamma-Al_2O_3$ Catalysts During Hydrodesulfurization of Benzothiophene. By M. Boudart, R. Dalla Betta, K. Foger, and D.G. Löffler (With 2 Figures)	187
EXAFS Studies on the Surface Structures of the Catalysts Derived from $Ru_3(CO)_{12}$ Supported on Al_2O_3 and on SiO_2 . By K. Asakura, N. Kosugi, Y. Iwasawa, and H. Kuroda (With 2 Figures)	190

M. Ichikawa, and T. Fukushima (With 4 Figures)	92
J.P. Bournonville (With 3 Figures)	95
J. Barrault, and A. Guilleminot (With 4 Figures)	.99
Sr, Ba, and Pb). By Wang Qi-wu, and J. wong (with 5 rights)	202
Catalyst Preparation Procedure Probed by EXAFS Spectroscopy: Co/TiO_2 By Y. Udagawa, K. Tohji, A. Ueno, T. Ida, and S. Tanabe (With 3 Figures) 2	206
Dynamical Studies of Catalytic Systems Using Dispersive X-Ray Absorption Spectroscopy. By D.E. Sayers, D. Bazin, E. Dartyge, H. Dexpert, A. Fontaine, A. Jucha, and P. Lagarde (With 1 Figure)	209
An EXAFS Study on the Influence of CO Adsorption on the Structure of Small Rhodium Clusters Supported on $_{Y}$ -Al $_{2}O_{3}$ or TiO_{2} . By D.C. Koningsberger (With 2 Fiugres)	212
An X-Ray Absorption Study of Gold/Y-Zeolite By M. Boudart and G. Meitzner (With 2 Figures)	217
Noble Metal Small Cluster EXAFS. By S. Mobilio, E. Burattini, A. Balerna, E. Bernieri, P. Picozzi, A. Reale, and S. Santucci (With 2 Figures)	222
EXAFS Studies of Transition Metal Carbonyl Clusters. By N. Binsted, S.L. Cook, J. Evans, and G.N. Greaves (With 4 Figures)	226
EXAFS and Mössbauer Study of Small Metal Clusters Isolated in Rare-Gas Solids By P.A. Montano, G.K. Shenoy, T.I. Morrison, and W. Schulze (With 3 Figures)	231
Differential Anomalous Scattering Studies of Supported Pt Clusters By S.S. Laderman, K.S. Liang, and J.H. Sinfelt (With 2 Figures)	234
Part V Surface Structure	
New Perspectives in SEXAFS. By F. Comin (With 4 Figures)	238
X-Ray Absorption Spectroscopy and Scattering for Surfaces By P. Rabe (With 4 Figures)	243
Near Edge X-Ray Absorption Fine Structure Studies of Chemisorbed Molecules By F. Sette and J. Stöhr (With 4 Figures)	250
The Interactions of Oxygen and Hydrogen with Cleaved InP(110). By P.J. Love, R.A. Rosenberg, V. Rehn, P.R. LaRoe, and C.C. Parks (With 4 Figures)	255
A SEXAFS Study of Iodine on Ni{100}: The Surface Iodide Phase. By R.G. Jones, S. Ainsworth, M.D. Crapper, C. Somerton, D.P. Woodruff, R.S. Brooks, J.C. Campuzano, D.A. King, G.M. Lamble, and M. Prutton (With 3 Figures)	258
Fluorescence Detection of Totally Reflected EXAFS (FREXAFS) at Interfaces By E.A. Stern, S.M. Heald, E. Keller, O. Petitpierre, C.E. Bouldin, and J. Tranquada (With 3 Figures)	261

Photoemission EXAFS on Outer Core Levels. By K.M. Choudhary, G.M. Rothberg, M.L. denBoer, G.P. Williams, M.H. Hecht, and I. Lindau (With 2 Figures)	264
Part VI Amorphous Materials and Glasses	
The EXAFS of Disordered Systems and the Cumulant Expansion By G. Bunker (With 2 Figures)	268
EXAFS Studies of Amorphous Semiconductors By C.E. Bouldin and E.A. Stern (With 3 Figures)	273
EXAFS Measurements of Hydrogenated Amorphous Germanium By C.E. Bouldin and E.A. Stern	278
Structural Investigations of Amorphous Iron-Germanium Alloys by EXAFS By R.D. Lorentz, S.S. Laderman, and A.I. Bienenstock (With 1 Figure)	280
Short Range Order In a-Ge $_X$ Si $_{1-x}$:H Alloys. By L. Incoccia, S. Mobilio, M.G. Proietti, P. Fiorini, and F. Evangelisti (With 2 Figures)	284
EXAFS Study of $(GaSb)_{1-x}(Ge_2)_x$. By F. Ellis, L. Romano, and E.A. Stern (With 1 Figure)	287
Measurements of the Fe Impurity Site in Si_3N_4 Using EXAFS By C.E. Bouldin and E.A. Stern	290
EXAFS and Edge Studies of Transition Elements in Silicate Glasses By J. Petiau, G. Calas, T. Dumas, and A.M. Heron (With 5 Figures)	291
The Environments of Modifiers in Oxide Glasses. By G.N. Greaves, N. Binsted, and C.M.B. Henderson (With 4 Figures)	297
Comparative Examination by EXAFS and WAXS of GeO_2-SiO_2 Glasses By R.B. Greegor, F.W. Lytle, J. Kortright, A. Fischer-Colbrie, and P.C. Schultz (With 2 Figures)	302
EXAFS Studies of Sodium Silicate Glasses Containing Dissolved Actinides By G.S. Knapp, B.W. Veal, A.P. Paulikas, A.W. Mitchell, D.J. Lam, and T.E. Klippert (With 2 Figures)	305
Local Coordination Environment of Na in a Series of Silica-Rich Glasses and Selected Minerals Within the $Na_2O-Al_2O_3-SiO_2$ System. By D.A. McKeown, G.A. Waychunas and G.E. Brown, Jr. (With 3 Figures)	308
Structural Organization Around Nucleating Elements (Ti,Zr) and Zn During Crystalline Nucleation Process in Silico-Aluminate Glasses. By T. Dumas, and J. Petiau (With 2 Figures)	311
EXAFS on Silver Borate Glasses. By P. Fornasini, G. Dalba, F. Rocca, E. Bernieri, and E. Burattini (With 3 Figures)	314
EXAFS and XANES Study of Ti Coordination in TiO ₂ Containing Glasses Upon Thermal Treatment. By M. Emili, L. Incoccia, S. Mobilio, M. Guglielmi, and G. Fagherazzi (With 3 Figures)	317
Local Order of Metallic Glasses by EXAFS and X-Ray Scattering: CuY Alloys By D. Raoux and A.M. Flank (With 3 Figures)	321
EXAFS of Glassy Metallic Alloys: Amorphous and Crystalline $Mg_{70}ZN_{30}$ By A. Sadoc, R. Krishnan, and P. Rougier (With 3 Figures)	326

EXAFS Studies of the Local Environment in Metal-Metal Glasses. By H. Maeda, H. Terauchi, M. Hida, N. Kamijo, and K. Osamura (With 3 Figures)	328
EXAFS of Amorphous Vanadium Phosphate Oxides: Correlation Between Hopping Conductivity and Local Structure. By S. Stizza, I. Davoli, M. Tomellini, A. Marcelli, A. Bianconi, A. Gzowski, and L. Murawski (With 3 Figures)	331
Part VII Geology and Geochemistry, and High Pressure	
Application of EXAFS and XANES Spectroscopy to Problems in Mineralogy and Geochemistry. By G.A. Waychunas and G.E. Brown, Jr. (With 9 Figures)	336
EXAFS/XANES Studies of Metamict Materials. By R.B. Greegor, F.W. Lytle, R.C. Ewing, and R.F. Haaker (With 8 Figures)	343
EXAFS and Near Edge Absorption in Glasses for Nuclear Waste Storage By M. Antonini, A. Merlini, and F.R. Thornley (With 4 Figures)	349
EXAFS Studies on Fluorites of β -PbF2 and SrF2. By N. Kamijo, K. Koto, Y. Ito, K. Tanabe, H. Maeda, M. Hida, and H. Terauchi (With 3 Figures)	352
EXAFS in Mixed Defect Chalcopyrite ZnGa ₂ (S _x Se _{1-x}) ₄ . By P.P. Lottici, C. Razzetti, G. Antonioli, and A. Parisini (With 3 Figures)	355
Cation Ordering in Ni-Mg Phyllosilicates of Geological Interest By A. Manceau, G. Calas, and J. Petiau (With 3 Figures)	358
EXAFS and XANES Studies of Trace Elements in Coal. By J. Wong, C.L. Spiro, D.H. Maylotte, F.W. Lytle, and R.B. Geegor (With 4 Figures)	362
Nature of Potassium Impurities in Coal. By C. Spiro, J. Wong, F.W. Lytle, R.B. Greegor, D.H. Maylotte, S. Lamson, and B. Glover (With 3 Figures)	36 8
Investigation of Topics of Interest in Steelmaking Technology by X-Ray Absorption Spectroscopy. By G.P. Huffman, F.E. Huggins, L.J. Cuddy, R.W. Shoenberger, F.W. Lytle, and R.B. Greegor (With 3 Figures)	371
High Pressure X-Ray Absorption Studies of Phase Transitions By J.M. Tranquada, R. Ingalls, and E.D. Crozier (With 6 Figures)	374
High Pressure L _{III} -Absorption in Mixed Valent Cerium By J. Röhler (With 4 Figures)	379
High-Pressure Energy Dispersive X-Ray Absorption of EuO up to 300 kbar By J. Röhler, E. Dartyge, A. Fontaine, A. Jucha, K. Keulerz, and D. Sayers (With 2 Figures)	385
An EXAFS Study of the Instability of the Zincblende Structure Under Pressure By J.M. Tranquada and R. Ingalls (With 2 Figures)	388
Part VIII Other Applications	
EXAFS and XANES Studies of FeCl ₃ -Doped Polyacetylenes. By K. Asakura, N. Kosugi, H. Kuroda, and H. Shirakawa (With 2 Figures)	392
Polarization-Dependent EXAFS in Br-Doped Polyacetylene. By W. Krone, G. Wortmann, K.H. Frank, G. Kaindl, K. Menke, and S. Roth (With 2 Figures)	394

Polarized X-Ray Absorption Spectroscopy Studies of Halogen-Doped Polyacetylene By H. Oyanagi, M. Tokumoto, T. Ishiguro, H. Shirakawa, H. Nemoto, T. Matsushita, and H. Kuroda (With 2 Figures)	397
EXAFS Study of Copper Inclusions in Organic Conducting Polymers By G. Tourillon, H. Dexpert, and P. Lagarde (With 3 Figures)	400
Polarization Use in Anisotropic Elastic Core Effect Determination and Copper Clustering Dynamic Followed by Dispersive X-Ray Absorption. By A. Fontaine, E. Dartyge, and G. Tourillon (With 6 Figures)	403
EXAFS Studies of Electrolyte Solutions. By D.R. Sandstrom (With 4 Figures)	409
EXAFS and X-Ray Diffraction Studies of Ni(II)- and Zn(II)-Glycinate Complexes in Aqueous Solution. By K. Ozutsumi, T. Yamaguchi, H. Ohtaki, K. Tohji, and Y. Udagawa (With 1 Figure)	414
EXAFS, X-Ray, and Neutron Diffraction of Electrolyte Solutions By T. Yamaguchi, O. Lindqvist, J.B. Boyce, and T. Claeson (With 2 Figures)	
EXAFS at the Cd K Edge: A Study of the Local Order in CdBr ₂ Aqueous Solutions	420
EXAFS Studies of $Cd_2(AlCl_4)_2$: Structure of the Cd_2^{2+} Ion By A.P. Hitchcock, B. Christian, and R.J. Gillespie (With 2 Figures)	423
Local Structure of Pseudobinary Alloys. By J.B. Boyce and J.C. Mikkelsen, Jr. (With 3 Figures)	426
Local Lattice Structure of Solid Solutions of Alkali Halides By T. Murata (With 3 Figures)	432
An EXAFS Study of the Effect of Temperature on Short Range Ordering in the Ionic Conductor, RbBiF4. By C.R.A. Catlow, A.V. Chadwick, G.N. Greaves, L.M. Moroney, and S.M. Tomlinson (With 3 Figures)	435
Yttria Stabilized Zirconia Systems: Evolution of the Local Order Around the Yttrium and Zirconium Cations. By M.H. Tuilier, J. Dexpert-Ghys, H. Dexpert, and P. Lagarde (With 2 Figures)	439
EXAFS Studies of Yttria Stabilized Zirconia. By A.I. Goldman, E. Canova,	442
EXAFS Studies of Xenon Atoms in Matrices of Argon and of Krypton Atoms in Matrices of Neon. By W. Malzfeldt, W. Niemann, P. Rabe, and R. Haensel (With 4 Figures)	
Soft X-Ray Absorption Measurements at the K-Edges of Sulphur and Chlorine By J. Goulon, R. Cortes, A. Retournard, A. Georges, J.P. Patteri, B. Fortes	445
L ₃ -XANES and EXAFS Studies of R in RPd ₂ Si ₂ Intermetallic Compounds By B. Darshan and R D. Padalia (With 1 Signal)	449
EXAFS Study of Intermetallics of the Type RGe ₂ (R = La, Ce, Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er, and Y), By A.R. Chourasia, V.D. Chafekan, S.D. Documenta	452
Japre, and C. Mande	455
	1 58
XANES in SbSI, Sb_2S_3 , Sb_2S_5 . By G. Dalba, P. Fornasini, and E. Burattini (With 3 Figures)	161

A Comprehensive Investigation of Residual Compounds of Br in HOPG and Graphite Fibers via X-Ray Absorption. By J.L. Feldman, W.T. Elam, A.C. Ehrlich, E.F. Skelton, D.D. Dominguez, S.B. Qadri, D.D.L. Chung, and F.W. Lytle (With 3 Figures)	464
EXAFS Study of a Decomposed Fe-Grafoil System. By Y. Ma, E.A. Stern, and H. Shechter	468
Part IX Related Techniques and Instrumentation	
Fundamental Aspects in X-Ray Absorption in Dispersive Mode By E. Dartyge, A. Fontaine, A. Jucha, and D. Sayers (With 6 Figures)	472
An Energy Dispersive X-Ray Absorption Spectrometer and Its Application to Stopped-Flow Experiment. By T. Matsushita, H. Oyanagi, S. Saigo, H. Kihara, and U. Kaminaga (With 3 Figures)	476
Efficiency of the Energy Dispersive Configuration for X-Ray Absorption Measurement by Total Reflection. By J. Mimault, R. Cortes, E. Dartyge, A. Fontaine, A. Jucha, and D. Sayers (With 1 Figure)	479
EXAFS Investigations of Ion-Implanted Si Using Flourescence Detection and a Grazing-Incidence X-Ray Beam. By B.A. Bunker, S.M. Heald, and J. Tranquada (With 2 Figures)	482
ReflEXAFS Studies of Protective Oxide Formation on Metal Surfaces By L. Bosio, R. Cortes, and M. Froment (With 6 Figures)	484
Reflection Extended Energy Loss Fine Structures Above Ti L_2 , a Edge: A Comparison with EXAFS Results. By M. De Crescenzi, G. Chiarello, and E. Colavita (With 4 Figures)	437
X-Ray Excited Optical Luminescence (XEOL): Potentiality and Limitations for the Detection of XANES/EXAFS Excitation Spectra. By J. Goulon, P. Tola, J.C. Brochon, M. Lemonnier, J. Dexpert-Ghys, and R. Guilard (With 10 Figures)	490
Bremsstrahlung Isochromat Spectroscopy (BIS) in the XANES and EXAFS Region By W. Speier, J.C. Fuggle, R. Zeller, and M. Campagna (With 4 Figures)	496
X-Ray L $_{3,15}$ Emission Spectrum of Ru in Ru(NH $_{3}$) $_{6}$ Cl $_{3}$. By R.C.C. Perera, J. Barth, R.E. LaVilla, and C. Nordling (With 1 Figure)	501
X-Ray Photoconductivity Measurements of EXAFS in Liquids: Techniques and Applications. By T.K. Sham and R.A. Holroyd (With 3 Figures)	504
Magnetic XANES. By E. Keller and E.A. Stern	507
Modulated EXAFS Studies of Ferroelectrics. By O. Petitpierre, Y. Yacoby, and E.A. Stern	509
Analysis and Application of Multiple Diffraction Phenomena in Perfect Crystal Monochromators. By Z.U. Rek, G.S. Brown, and T. Troxel (With 3 Figures)	511
Crystal Glitches of X-Ray Monochromators. By K.R. Bauchspiess and E.D. Crozier (With 3 Figures)	514
A Linear Spectrometer Designed for EXAFS Spectroscopy. By P. Brinkgreve, T.M.J. Maas, D.C. Koningsberger, J.B.A.D. van Zon, M.H.C. Janssen, A.C.M.E. van Kalmthout, and M.P.A. Viegers (With 2 Figures)	517

Laboratory EXAFS Spectrometer with a SSD and a Fast Detection System By Y. Udagawa and K. Tohji (With 3 Figures)	520
Multi-Detector Fluorescence EXAFS Apparatus Applied to Very Thin Film Studies By H. Oyanagi, T. Matsushita, H. Tanoue, T. Ishiguro, and K. Kohra (With 2 Figures)	523
Fabrication of Large-Area X-Ray Filters for Fluorescence EXAFS Measurements By J. Wong	527
Index of Contributors	531