

## 最近SPring-8から輩出された成果リスト

財団法人高輝度光科学研究センター  
利用業務部

SPring-8において実施された研究課題等の成果が公表された場合はJASRIの成果登録データベースに登録していくことになっており、以下のホームページから検索できます。

<http://4users.spring8.or.jp/publ/>

このデータベースに登録された原著論文の内、平成16年8~9月にその別刷もしくはコピー等を受理したもの（登録時期は問いません）を以下に紹介します。論文の情報（主著者、巻、発行年、ページ、タイトル）に加え、データベースの登録番号（研究成果番号）を掲載していますので、詳細はホームページでご覧いただくことができます。また実施された課題の情報（課題番号、ビームライン、実験責任者名）も掲載しています。課題番号は最初の4文字が「year」次の1文字が「term」後ろの4文字が「proposal no.」となっていますので、この情報から以下のHPで公表している、各課題の英文利用報告書（SPring-8 User Experiment Report）を探してご覧いただくことができます。

[http://www.spring8.or.jp/e/user\\_info/user\\_ex\\_repo/](http://www.spring8.or.jp/e/user_info/user_ex_repo/)

今後利用者情報には発行月の2ヶ月前の月末締めで、2ヶ月分ずつ登録された論文情報を掲載していく予定ですが、ホームページは毎日更新されていますので、最新情報はホームページをご覧ください。なお、実験責任者のかたには、成果が公表されましたら速やかに登録いただきますようお願いいたします。

### ・課題の成果として登録された論文（掲載された論文数の多い雑誌順）

#### Physical Review B

主著者	巻、発行年、ページ	研究成果番号	課題番号	ビームライン	実験責任者	タイトル
Yutaka, Moritomo	69 (2004) 134118	5689	2003B6004	BL10XU	高田昌樹	Pressure Effects on the Charge-Ordering Transition of BaYCo <sub>2</sub> O <sub>5</sub>
Eiji, Nishibori	69 (2004) 113412	6208	2003A0204 2001B0403	BL02B2	高田昌樹 西堀英治	Anomalous Endohedral Structure of Gd@C <sub>82</sub> Metallofullerenes
Yutaka, Moritomo	70 (2004) 104103	6369	2003A2003 2003A0059	BL02B2 BL10XU	守友浩	High-Pressure Structural Investigation of Ferromagnetic Nd <sub>2</sub> Mo <sub>2</sub> O <sub>7</sub>
Alexandre, Rykov	68 (2003) 224401	6468	2002A0046	BL11XU	野村貴美	Phonon Density of States in Sr <sub>2</sub> FeCoO <sub>6</sub> - and BaSrFeCoO <sub>6</sub> - : Effects Induced by Magnetic Order and Transport Coherence
Yasuhisa, Yamamura	70 (2004) 104107	6743	2001A0032 2003A0123	BL02B2	黒岩芳弘 山村泰久	Drastic Lowering of the Order-Disorder Phase Transition Temperatures in Zr <sub>1-x</sub> M <sub>x</sub> W <sub>2</sub> O <sub>8-y</sub> (M=Sc, Y, In) Solid Solutions

#### Acta Crystallographica Section D

Ryo, Iwase	60 (2004) 727-729	6036	2003B0369 2003B0866	BL41XU	今田勝巳	Crystallization and Preliminary Crystallographic Analysis of the Circadian Clock Protein KaiB from the Thermophilic Cyanobacterium Thermosynechococcus elongatus BP-1
Jichun, Ma	60 (2004) 317-319	6139	C02A7000 C02B7000 C03A7000	BL44XU	山下栄樹	Crystallization and Preliminary Crystallographic Analysis of Rat Monoamine Oxidase A Complexed with Clorgyline
Hiroshi, Itou	60 (2004) 1094-1100	6599	2002B0756			
				BL38B1	田中勲	Structure Analysis of PH1161 Protein, a Transcriptional Activator TenA Homologue from the Hyperthermophilic Archaeon Pyrococcus horikoshii

# PRESENT STATUS OF SPring-8

## Atmospheric Environment

主著者	巻、発行年、ページ	研究成果番号	課題番号	ピームライン	実験責任者	タイトル
Chang-Jin, Ma	38 (2004) 1133-1143	6658	2002B0395	BL37XU	早川慎二郎	Properties of Individual Asian Dust Storm Particles Collected at Kosan, Korea during ACE-Asia
			2002A4029	BL39XU		
Chang-Jin, Ma	38 (2004) 2951-2964	6659	2002A0395	BL37XU	早川慎二郎	The Nature of Individual Solid Particles Retained in Size-Resolved Raindrops Fallen in Asian Dust Storm Event during ACE-Asia
Chang-Jin, Ma	38 (2004) 4519-4529	6660	2002B0395	BL37XU	早川慎二郎	Properties of the Size-Resolved and Individual Cloud Droplets Collected in the Western Japan during Asian Dust Storm Event
			2002A4029	BL39XU		

## Physical Review Letters

Yoshihisa, Harada	93 (2004) 17401	6528	2002B0675	BL27SU	原田慈久	Dynamical Symmetry Breaking under Core Excitation in Graphite: Polarization Correlation in Soft X-Ray Recombination Emission
Masanori, Inui	93 (2004) 097801-1-4	6693	2003A6607	BL35XU	田村剛三郎	Fast Sound in Expanded Fluid Hg Accompanying the Metal-Nonmetal Transition
			2003B0206		乾雅祝	
Yoshiyuki, Yamamoto	93 (2004) 116801	6704	2002B0380	BL39XU	山本良之	Direct Observation of Ferromagnetic Spin Polarization in Gold Nanoparticles

## American Mineralogist

Susumu, Ikeda	89 (2004) 1304-1313	5976	2000B0462 2001A0334	BL20B2	中野司	Nondestructive Three-Dimensional Element-Concentration Mapping of a Cs-doped Partially Molten Granite by X-ray Computed Tomography using Synchrotron Radiation
Shigeaki, Ono	89 (2004) 1480	6760	2002A0106 2002B0162	BL10XU	小野重明	Phase Transition of Ca-Perovskite and Stability of Al-Bearing Mg-Perovskite in the Lower Mantle

## Japanese Journal of Applied Physics

Toshiyuki, Matsunaga	43 (2004) 4702-4712	5892	2003A0478	BL02B2	松永利之	Crystallographic Studies on High-Speed Phase-Change Materials Used for Rewritable Optical Recording Disks
Takayasu, Hanashima	43 (2004) 4171-4178	5924	2002B0170	BL02B2	佐々木聰	Compositional Dependence of X-Ray Absorption Spectra and Magnetic Circular Dichroism and Near-Edge Structure at Co K Edge in La <sub>1-x</sub> Sr <sub>x</sub> CoO <sub>3</sub> ( $0 < x < 0.6$ )

## Journal of Medicinal Chemistry

Tadashi, Terasaka	47 (2004) 3730-3743	6518	C03B5029	BL24XU	木下誉富	Structure-Based Design, Synthesis, and Structure-Activity Relationship Studies of Novel Non-Nucleoside Adenosine Deaminase Inhibitors
Kouji, Hattori	47 (2004) 4151-4154	6714	2004A8168	BL32B2	木下誉富	Rational Approaches to Discovery of Orally Active and Brain-Penetrable Quinazolinone Inhibitors of Poly(ADP-ribose)polymerase

## JSME International Journal Series A

Takao, Hanabusa	47 (2004) 312-317	6272	2002A0258	BL13XU	英崇夫	Evaluation of Internal Stresses in Single-, Double- and Multi-Layered TiN and TiAlN Thin Films by Synchrotron Radiation
Kenji, Suzuki	47 (2004) 318-323	6500	2001B0063	BL02B1	鈴木賢治	Estimation Spalling Stress in Thermal Barrier Coatings Using Hard Synchrotron X-rays
			2002A0116			
			2002B0158			

## Review of Scientific Instruments

Nobuteru, Nariyama	75 (2004) 2860-2862	6389	R03A0052 R03B0026	BL47XU	成山展照	Characteristics of a Miniature Parallel-Plate Free-Air Ionization Chamber for Measuring the Intensity of Synchrotron Radiation from an Undulator
Tatsuhiko, Kawamoto	75 (2004) 2451-2454	6721	2003A0032	BL04B2	川本竜彦	Raman Spectroscopy of Cubic Boron Nitride under High Temperature and Pressure Conditions: A New Optical Pressure Marker.

**Surface Science**

著者	巻、発行年、ページ	研究成果番号	課題番号	ビームライン	実験責任者	タイトル
Masashi, Nakamura	563 (2004) 199-205	6705	2002B0304	BL13XU	伊藤正時	Disordered Structure of Pt(111)-p(2×2) Induced by Synchrotron X-ray Beam Irradiation
Shin-ichiro, Hatta	565 (2004) 144-150	6712	2002B0336	BL13XU	有賀哲也	Structure Analysis of Cu(001)-c(4×4)-In by Surface X-ray Diffraction

**Transactions of the Materials Research Society of Japan**

Kozaburo, Tamura	29 (2004) 83-88	5467	2001B3020	BL04B1	田村剛三郎	Structural Studies of Expanded Fluid Metals Using Synchrotron Radiation
			2003A6020	BL28B2		
Hiroyuki, Yakabe	29 (2004) 251-254	6499	2003B0178	BL13XU	高原淳	Crystal Structure in the Near-Surface Region of Melt-Crystallized Polyethylene Films Investigated by Grazing Incidence X-ray Diffraction
			2003A0705			
			2002B0227		佐々木園	

**Academic Radiology**

Ryoji, Tokiya	11 (2004) 1039-1046	6751	2003B0385	BL20B2	釋舍竜司	Observation of Microvasculatures in Athymic Nude Rat Transplanted Tumor Using Synchrotron Radiation Microangiography System
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**Acta Crystallographica Section B**

Eva, Dova	60 (2004) 528-538	6741	2001B0501	BL02B2	加藤健一	Structures of Fell Spin-Crossover Complexes from Synchrotron Powder-Diffraction Data
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**Advances in Experimental Medicine and Biology**

Hiroshi, Okuyama	538 (2003) 533-539	6306	2002A0206	BL45XU	奥山博司	An X-ray Diffraction Study on Contraction of Rat Papillary Muscle with Different Afterloads
			2000B0033			
			2001A0026			
			2001B0414			

**Analytical Chemistry**

Yoshio, Takahashi	76 (2004) 4307-4314	6664	2004A0617	BL01B1	高橋嘉夫	Direct Determination of the "Organic Extent" of Tin Species in Environmental Samples by X-ray Absorption Near-Edge Structure Spectroscopy
			2003B0385			
			2003A0536			

**Angewandte Chemie International Edition**

Shinobu, Aoyagi	43 (2004) 3670-3673	6175	2003A0608	BL02B2	青柳忍	Direct Observation of Bonding and Charge Ordering in (EDO-TTF) <sub>2</sub> PF <sub>6</sub>
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**Applied Surface Science**

Hiroo, Tajiri	234 (2004) 403-408	6416	2002B0189	BL13XU	田尻寛男	Surface X-ray Diffraction in Transmission Geometry
			2003A0189			
			2003A0617			
			2002B0705			寺田靖子

**Biological Chemistry**

Hajime, Hiramatsu	385 (2004) 561-564	6661	2003B8114	BL32B2	平松元	The Crystal Structure of Human Dipeptidyl Peptidase IV (DPPIV) Complex with Diprotin A
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**Biomedical Research on Trace Elements**

Tokutaka, Ikemoto	14 (2003) 323-325	5676	2002A0505	BL01B1	中井泉	XAFS and Gel Filtration Studies of Cadmium in Liver of Japanese Common Squid.
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**The EMBO Journal**

Mayuko, Okabe	22 (2003) 5918-5927	6638	2004A0293	BL41XU	瀧木理	Divergent Evolution of Trinucleotide Polymerization Revealed by an Archaeal CCA-Adding Enzyme Structure.
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# PRESENT STATUS OF SPring-8

## Inorganic Chemistry

主著者	巻、発行年、ページ	研究成果番号	課題番号	ピームライン	実験責任者	タイトル
Kaoru, Okamoto	42 (2003) 8682-8689	6713	2002B0150	BL01B1	太田俊明	Structural Study on Highly Oxidized States of a Water Oxidation Complex [RuIII(bpy)2(H2O)]2(μ-O)4+ by Ruthenium K-Edge X-ray Absorption Fine Structure Spectroscopy

## Journal of Applied Crystallography

Hiroshi, Yamada	37 (2004) 698-702	6725	2003A0497	BL02B2	Xu Chao-Nan	Observation of Orientational Disorder in the Hexagonal Stuffed Tridymite Sr0.864Eu0.136Al2O4 by the Maximumu-Entropy Method
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## Journal of Applied Physics

Osami, Sakata	96 (2004) 3580-3582	6292	2003A0192	BL13XU	久保衆伍	High-Quality As-Grown MgB2 Thin-Film Fabrication at a Low Temperature using an in-Plane-Lattice Near-Matched Epitaxial-Buffer Layer
			2003B0736			

## The Journal of Biological Chemistry

Ryuya, Fukunaga	279 (2004) 8396-8402	6597	2003A0265	BL41XU	濡木理	Crystal Structure of the CP1 Domain from <i>Thermus thermophilus</i> Isoleucyl-tRNA Synthetase and its Complex with L-Valine.
			C02A7128			

## Journal of Chemical Physics

Mikihi, Takenaka	121 (2004) 3323-3328	6618	2003A0374	BL45XU	竹中幹人	Comparison in Fractal Dimension between Those Obtained from Structure Factor and Viscoelasticity of Gel Networks of 1,3:2,4-bis-O-(p-Methylbenzylidene)-D-Sorbitol in Polystyrene Melt at Gel Point
			2003B0460			

## Journal of Luminescence

Mitsushi, Terakami	108 (2004) 75-79	5564	2003A0040	BL43IR	中川英之	Dichroic Infrared Absorption of Dipole Centers in Cadmium Halide Crystals
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## Journal of Molecular Biology

Aiko, Fujino	341 (2004) 999-1013	6719	2001A0561	BL40B2	姚閔	Structural and Enzymatic Properties of 1-Aminocyclopropane-1-Carboxylate Deaminase Homologue from <i>Pyrococcus horikoshii</i>
			2001A0660			

## Journal of Physical Society of Japan

Takuo, Ohkochi	73 (2004) 2212	6759	2002B0068 2002B0462	BL25SU BL39XU	橋爪弘雄	Induced Magnetic Polarization in Cu Layers of Gd/Cu Multilayers Studied by X-ray Magnetic Circular Dichroism
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## Journal of Synchrotron Radiation

John P., Sutter	11 (2004) 378-385	6678	2003A0064 装置開発	BL29XU	John P. Sutter	An X-ray BBB Michelson Interferometer
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## Journal of the Society for Information Display

Ichiro, Hirosawa	12 (2004) 269-273	6750	2003A0642 2003B0773	BL19B2	廣沢一郎	Oxidation of Doped Europium in BaMgAl10O17 by Annealing Studied by X-ray Absorption Fine-Structure Measurements
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## Langmuir

Motonari, Adachi	20 (2004) 5965-5968	6501	2001B0368 2002A0289	BL45XU	足立基齊	Formation Processes of the Integrated Ordered Mesostructure of Silaca at Liquid-Liquid Interface using Synchrotron Radiation X-rays
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## Liquid Crystals

Kayako, Hori	31 (2004) 759-766	5859	2002A0402	BL04B2	堀佳也子	Diversity in Packing Modes of Mesogenic Diphenylpyrimidines with Two Chiral Centres in Crystal Structures: the Role of Interactions between Pyrimidine Rings
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**Nature**

著者	巻、発行年、ページ	研究成果番号	課題番号	ピームライン	実験責任者	タイトル
Chikashi, Toyoshima	430 (2004) 529-535	6701	2003A0471	BL41XU	豊島近	Crystal Structure of the Calcium Pump with a Bound ATP Analogue

**Nature Structural and Molecular Biology**

Yoshiaki, Kise	11 (2004) 149-156	6641	2003A0266	BL41XU	濡木理	A Short Peptide Insertion Crucial for Angiostatic Activity of Human Tryptophanyl-tRNA Synthetase
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**Nuclear Instruments and Methods in Physics Research Section B**

Chang-Jin, Ma	217 (2004) 657-665	6657	2002B0395 2002A4029	BL37XU BL39XU	早川慎二郎	Determination of the Chemical Properties of Residues Retained in Individual Cloud Droplets by XRF Microprobe at SPring-8
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**Nucleic Acids Research**

Norie, Fujikawa	32 (2004) 82-92	6640	2003B0497 2003A0264	BL41XU	濡木理	Structural and Biochemical Analyses of Hemimethylated DNA Binding by the SeqA Protein
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**Physica C**

Hiroshi, Okuda	411 (2004) 114-119	6729	2003B0449	BL46XU	奥田浩司	In-situ Strain Measurements of Bi2223 Superconducting Filaments in Multifilamentary Ag-Sheathed Bi2223 Superconducting Tapes
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**Physica Scripta**

Norio, Saito	T110 (2004) 90-95	5352	2001A0363 2001B0034 2002A0379 2002B0138 2002A0609	BL27SU	齋藤則生 Alberto De Fanis 上田潔 齋藤則生	Nuclear Dynamics of Core-Excited and Ionized Small Polyatomic Molecules Probed by Multiple Coincidence Momentum Imaging Technique
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**Physical Review A**

Masaki, Oura	70 (2004) 22710	6671	2002B0651	BL27SU	大浦正樹	Observation of the Angle-Resolved Resonant Auger Emission from the [1s2p](3,1P)3p2 1P Doubly Excited 2p-2h States of Ne
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**Polymer**

Isamu, Akiba	45 (2004) 5761-5764	6682	2003A0297	BL40B2	秋葉勇	Nanostructured Polymer Blend Formed from Poly(N-vinylpyrrolidone) and End-Functional Polystyrene
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**Proceedings of the Ocean Drilling Program, Scientific Results**

Yoshio, Takahashi	191 (2004) 191SR007	6665	2001B0393 2003A0536	BL01B1	高橋嘉夫	Geochemical Study of ODP Leg 191 Site 1179 Sediments :Direct Observation of Mn and Ce Oxidation States
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**Radiation Physics and Chemistry**

Carl B., Collins	71 (2004) 619-625	6706	2003A0054 2002A0321 2001A0570 2001A0082	BL09XU BL01B1	Carl B. Collins	Accelerated Emission from Isomeric Nuclei
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**Structure**

Osamu, Nureki	12 (2004) 593-602	6649	2002A0023	BL41XU	濡木理	Deep Knot Structure for Construction of Active Site and Cofactor Binding Site of tRNA Modification Enzyme
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**Surface and Interface Analysis**

Hideyuki, Yasufuku	36 (2004) 892-895	6652	C03B2005	BL15XU	吉川英樹	Application of X-ray Photoemission Electron Microscopy Developed at SPring-8 BL15XU
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# PRESENT STATUS OF SPring-8

## 材料 (Journal of the Society of Materials Science, Japan)

主著者	巻、発行年、ページ	研究成果番号	課題番号	ビームライン	実験責任者	タイトル
Yoshiaki, Akiniwa	53 (2004) 752-757	6531	2003A0103	BL09XU	秋庭義明	Measurement of Stress Distribution Near Notch and Fatigue Crack in Ultra-Fine Grained Steel by Synchrotron Radiation

・課題の成果以外で登録された論文（原研、理研、加速器等）

## Journal of Applied Physics

主著者	巻、発行年、ページ	研究成果番号		ビームライン	タイトル
Akane, Agui	95 (2004) 7825-8731	6553	原研	BL23SU	Soft X-ray Magnetic Circular Dichroism Study of [Co/Pd] Multilayered Perpendicular Magnetic Films
Yoshiki, Kohmura	96 (2004) 1781	6656	光学系	BL20XU	Phase Retrieval with Two-Beam Off-Axis X-ray Holography

## Biochemistry

Keiichi, Fukuyama	43 (2004) 4111-4118	5984	理研	BL44B2	Crystal Structure of a Zinc-Binding ATP Sulfurylase from Thermus thermophilus HB8
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## Cell

Irina, Artsimovitch	117 (2004) 299-310	6642	理研	BL45XU	Structural Basis for Transcription Regulation by Alarmone ppGpp
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## Europhysics Letters

Tomohiro, Matsushita	65 (2004) 207-213	5557	原研	BL23SU	A New Approach for Three-Dimensional Atomic-Image Reconstruction from a Single-Energy Photoelectron Hologram
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## Japanese Journal of Applied Physics

Keisuke, Kobayashi	43 (2004) L1029-L1031	6683	理研	BL29XU	Intrinsic Valence Band Study of Molecular-Beam-Epitaxy-Grown GaAs and GaN by High-Resolution Hard-X-ray Photoemission Spectroscopy
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## The Journal of Biological Chemistry

Yuuko, Hisanaga	279 (2004) 31717-31726	6662	理研	BL26B1 BL45XU	Structural Basis of the Substrate-Specific Two-Step Catalysis of Long Chain Fatty Acyl-CoA Synthetase Dimer
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## Journal of Molecular Biology

Mutsuko, Kukimoto- Niino	337 (2004) 761-770	6596	理研	BL44B2 BL26B1	Crystal Structure of the GTP-Binding Protein Obg from Thermus Thermophilus HB8
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## Journal of Vacuum Science & Technology A

Kousuke, Moritani	22 (2004) 1625-1630	6667	原研	BL23SU	Photoemission Study of the Translational Energy Induced Oxidation Processes on Cu(111)
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## Molecular Cell

Takashi, Kinebuchi	14 (2004) 363-374	6639	原研	BL44B2	Structural Basis for Octameric Ring Formation and DNA Interaction of the Human Homologous-Pairing Protein Dmc1
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## Physical Review E

Masaru, Takao	70 (2004) 16501	6711	加速器		Perturbative Formulation for Nonlinear Chromaticaly of Circular Accelerator
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## Physical Review Special Topics - Accelerators and Beams

Takashi, Tanaka	7 (2004) 090704	6755	挿入光源		Application of High-Temperature Superconducting Permanent Magnets to Synchrotron Radiation Sources
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## Proteins

Takashi, Wada	55 (2004) 778-780	6595	理研	BL44B2	Crystal Structure of the Conserved Hypothetical Protein TT1380 from Thermus Thermophilus HB8
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