

Poster Session
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Date & Time of Presentation : 19:30 - 21:00 on February 1st, 2004

Size of Poster Board : 90cm width X 120cm height

\*Posters should be displayed at given positions between 18:00 and 19:00.

\*Author(s) is(are) responsible to present the poster between 19:30 and 21:00.

\*The posters will be continuously displayed by the end of the conference.

Program for the 2nd NIMS International Conference

(Poster session : Fundamentals)

#	Title	Authors and Affiliations
PF1	Ab initio calculation of photocatalysis - Ionic core potential effect in $\text{CaIn}_2\text{O}_4$ and $\text{SrIn}_2\text{O}_4$ -	Masahiko Katagiri, Junwang Tang, Jinhua Ye and Takehiko Matsumoto, NIMS, Japan
PF2	The effect of the oxygen defect on the electronic structures of the $\text{RVO}_4$ [R=Y or rare earth lanthanide metal] photo catalyst systems.	Mitsutake Oshikiri, Jinhua Ye, Ferdi Aryasetiawan*, NIMS, *AIST, Japan
PF3	Transport properties and photocatalytic activity in semiconductor oxide photocatalysts $\text{RVO}_4$ (R = rare earth)	Akiyuki Matsushita, Tadashi C. Ozawa*, Hirokazu Shimada**, Jinhua Ye, Yuh Yamada**, NIMS, *Aoyama Gakuin Univ., **Niigata Univ., Japan
PF4	Photoelectrochemical Properties of a Series of Vanadate Photocatalysts	Shou-Qing Liu, Zhigang Zou*, Jinhua Ye, NIMS, *AIST, Japan
PF5	Effects of $\text{Li}^+$ -doping on the photocathodic properties of sol-gel-derived NiO thin films	Tomoko Kishimoto and Hiromitsu Kozuka, Kansai Univ., Japan
PF6	Sol-gel preparation and photoanodic properties of $\text{Fe}_2\text{O}_3$ - $\text{TiO}_2$ thin films	Masaki Okubayashi and Hiromitsu Kozuka, Kansai Univ., Japan
PF7	Photoluminescence of $\text{TiO}_2$ in the Presence of Ethanol	Hiromitsu Nakajima, Toshiyuki Mori, NIMS, Japan
PF8	Structural and photophysical properties of solid photocatalysts, $\text{Bi}_x\text{In}_{(1-x)}\text{NbO}_4$ ( $0 < x < 1$ )	JingFei Luan, YanFeng Chen, Suxin Ouyang, Minghui Lu, Nanjing Univ., China
PF9	Structural properties of solid photocatalysts, $\text{Bi}_x\text{In}_{(1-x)}\text{TaO}_4$ ( $0 < x < 1$ )	JingFei Luan, YanFeng Chen, Suxin Ouyang, Minghui Lu, Nanjing Univ., China
PF10	Photocatalytic and Photoelectrochemical Behaviors of Surface Fluorinated $\text{TiO}_2$	Hyunwoong Park, Wonyong Choi, Pohang Univ. Sci. Tech., Korea
PF11	The roles of $\text{Na}^+$ on the Photocatalytic Activity and Properties of $\text{TiO}_2$	H-J Nam, T. Amamiya, M. Murabayashi, K. Ito, Yokohama Nat'l. Univ., Japan
PF12	Fabrication of composite coating spheres with silica spheres/titania shell structures by heterogeneous nucleation-and-growth processing	YueFeng Tang, Liang Feng, AiDong Li, YanFeng Chen, ZhiGang Zou, Nanjing Univ., China
PF13	Degradation of phenol by underwater pulsed corona discharge in combination with $\text{TiO}_2$ photocatalysis	Petr Lukes*, M. Clupek, P. Sunka, F. Peterka, T. Sano, N. Negishi, S. Matsuzawa, K. Takeuchi, *Academy of Sciences of the Czech Republic, Czech
PF14	Comparison of the photocatalytic properties between a batch reactor and a flow reactor under a mass transport controlled condition	Tetsuya Kako, Akira Nakajima, Toshiya Watanabe, Kazuhito Hashimoto, Univ. Tokyo, Japan
PF15	Photocatalytic oxidation of 2-propanol in the gas phase over Cesium Bismuth Niobates under visible light irradiation	Tetsuya Kako, Junwang Tang, Zhigang Zou†, Jinhua Ye, NIMS, †AIST, Japan

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PM1	( <i>invited</i> ) Development of the Visible Light Driven Photocatalysts for Water Splitting into Hydrogen and Oxygen	Z. Zou, J. Ye*, R. Abe, K. Sayama, H. Arakawa, AIST, *NIMS, Japan
PM2	Photocatalytic and photophysical properties of a new series of photocatalysts, Ba <sub>2</sub> Bi(III)Bi(V)O <sub>6</sub> and Ba <sub>2</sub> Bi(III)Sb(V)O <sub>6</sub>	Zhaosheng Li <sup>a</sup> , Jinhua Ye <sup>b</sup> , Ning Xu <sup>a</sup> , Yanfeng Chen <sup>a</sup> , Zhigang Zou <sup>a,c</sup> , <sup>a</sup> Nanjing Univ., China, <sup>b</sup> NIMS, <sup>c</sup> AIST, Japan
PM3	Role of <i>d</i> electrons in oxide semiconductor CoM <sub>2</sub> O <sub>6</sub> (M=Nb, Ta) on Photocatalytic and photophysical properties	Dunfang Li <sup>a</sup> , Jinhua Ye <sup>b</sup> , Ning Xu <sup>a</sup> , Yanfeng Chen <sup>a</sup> , Zhigang Zou <sup>a,c</sup> , <sup>a</sup> Nanjing Univ., China, <sup>b</sup> NIMS, Japan, <sup>c</sup> AIST, Japan
PM4	Effect of the lattice vibration on the Photocatalytic Activity of BaM <sub>1/3</sub> N <sub>2/3</sub> O <sub>3</sub> (M=Ni, Zn; N=Nb, Ta) as Studied by Raman Spectroscopy	Jiang Yin <sup>1</sup> , Zhigang Zou <sup>2</sup> , Jinhua Ye <sup>1,3</sup> , <sup>1</sup> NIMS, <sup>2</sup> AIST, <sup>3</sup> JST, Japan
PM5	A new series of the visible light driven photocatalysts with ABO <sub>3</sub> perovskite structures as developed by controlling crystal and electronic structures	Jiang Yin <sup>1</sup> , Zhigang Zou <sup>2</sup> , Jinhua Ye <sup>1,3</sup> , <sup>1</sup> NIMS, <sup>2</sup> AIST, <sup>3</sup> JST, Japan
PM6	Effect of electronic structure on photocatalytic O <sub>2</sub> evolution with the visible-light-driven M <sub>2.5</sub> VMoO <sub>8</sub> (M=Mg, Zn)	Defa Wang <sup>1</sup> , Zhigang Zou <sup>2</sup> , Jinhua Ye <sup>1,3</sup> , <sup>1</sup> NIMS, <sup>2</sup> AIST, <sup>3</sup> JST, Japan
PM7	Photocatalytic H <sub>2</sub> evolution with a Cr doped Ba <sub>2</sub> In <sub>2</sub> O <sub>5</sub> /In <sub>2</sub> O <sub>3</sub> nanostructured composite oxide under UV and visible light irradiation	Defa Wang <sup>1</sup> , Zhigang Zou <sup>2</sup> , Jinhua Ye <sup>1,3</sup> , <sup>1</sup> NIMS, <sup>2</sup> AIST, <sup>3</sup> JST, Japan
PM8	Photocatalytic activities of variously modified TaON	Seiji Yamanaka, Tsuyoshi Takata, Daling Lu, Junko N. Kondo, Michikazu Hara, Kazunari Domen, Tokyo Inst. Tech., Japan
PM9	Development of co-catalysts to promote water decomposition over Ge <sub>3</sub> N <sub>4</sub> as a new photocatalyst	Yoko Yamada <sup>1</sup> , Junya Sato <sup>3</sup> , Tsuyoshi Takata <sup>1</sup> , Junko N. Kondo <sup>1</sup> , Michikazu Hara <sup>1</sup> , Yasunobu Inoue <sup>3</sup> , Kazunari Domen <sup>1,2</sup> , <sup>1</sup> Tokyo Inst. Tech., <sup>2</sup> JST, <sup>3</sup> Nagaoka Univ. Tech., Japan
PM10	Development of Photocatalyst with Visible Light Activity	Masahiro Miyauchi, TOTO Ltd., Japan
PM11	Preparation of TiO <sub>2</sub> -SiO <sub>2</sub> Mixed Oxide for Photocatalytic Water Decomposition: the Effect of Chelating Agents	The-Vinh Nguyen, O-Bong Yang, Chonbuk National Univ., Korea
PM12	Visible-Light-Active Nitrogen-Containing TiO <sub>2</sub> Photocatalysts Prepared by Spray Pyrolysis Technique	Di Li, Hajime Haneda, Shunichi Hishita, Naoki Ohashi, NIMS, Japan
PM13	Restacking of nanosheets and their photocatalytic activity for water splitting	Yasuo Ebina <sup>1</sup> , Nobuyuki Sakai <sup>1</sup> , Takayoshi Sasaki <sup>1,2</sup> , <sup>1</sup> NIMS, <sup>2</sup> JST, Japan
PM14	Visible-light-active Bi-based photocatalysts for decomposition of organic contaminants	Junwang Tang (a), Zhigang Zou (b), Tetsuya Kako (a), Jinhua Ye (a), (a)NIMS, (b)AIST, Japan
PM15	Dye contaminant degradation on MIn <sub>2</sub> O <sub>4</sub> photocatalyst active under visible light	Junwang Tang (a), Zhigang Zou (b), Jinhua Ye (a), (a)NIMS, (b)AIST, Japan
PM16	Photocatalytic decomposition of 4-nitrophenol over Cr-Ti-substituted TiO <sub>2</sub> -loaded MCM-41 catalysts in visible light	Gun-Dae Lee, Yoon-Jeong Do, Jin-Ho Kim, Jin-Hwan Park, Seong-Soo Park, Seong-Soo Hong, Pukyong National Univ., Korea
PM17	New synthesis of titanium oxide from various titanium salts by heterogeneous precipitation and its application for degradation of humic acid in water	Dong-Seok Rhee, Su Jin Shim, Mi Ra Kim*, Jung Hwan Kim*, Se-Gu Son**, Young-Do Kim**, Kangwon National Univ., Korea, *LiPo Functional Material Co., Ltd, Korea, **Gonggan Ceramic R&D Center, Seoul, Korea

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PM18	Efficient adsorption and photocatalytic degradation of organic pollutants diluted in water using TiO <sub>2</sub> photocatalyst loaded on fluoride-modified hydrophobic mesoporous silica	Hiroshi Yamashita, Kazuhiro Maekawa, Hidetoshi Nakao, Masaru Harada, Bernardshaw Neppolian, Masakazu Anpo, Osaka Pref. Univ., Japan
PM19	Photoactive titania powders based on homogeneously precipitated anatase	V. Balek <sup>1</sup> , J.Subrt <sup>2</sup> , S.Bakardjieva <sup>2</sup> , V.Stengl <sup>2</sup> , F.Peterka <sup>3</sup> , J.Jirkovsky <sup>4</sup> , T.Mitsuhashi <sup>5</sup> , H.Haneda <sup>5</sup> , <sup>1</sup> Nuclear Research Institute Rez, Czech, <sup>2</sup> Inst. Inorg. Chem., <sup>3</sup> Adv. Tech. Group Ltd., <sup>4</sup> Heyrovsky Inst. Phy. Chem., Czech Republic, <sup>5</sup> NIMS, Japan
PM20	Synthesis and Photocatalytic Properties of Nano Bicrystalline Titania of Anatase and Brookite by Hydrolyzing TiOCl <sub>2</sub> Aqueous Solution at Lower Temperatures	Yuanzhi Li, Nam-Hee Lee, Sei-Ki Kim, Jae Sung Song*, Sun-Jae Kim, Sejong Univ., *Korea Electrotechnology Res. Inst., Korea
PM21	Preparation of TiO <sub>2</sub> Thin Film by Low Temperature Plasma Process and Evaluation of Its Photocatalytic Characteristics	Ho Min, Hoon Kim, Byung Hoon Kim, Jong Ho Kim, and Dong Lyun Cho, Chonnam National Univ., Korea
PM22	Preparation and Activity of Chlorine-Doped TiO <sub>2</sub> Visible light Driven Photocatalysts	S. K. Joung, T. Amemiya, M. Murabayashi, K. Itoh, Yokohama Nat'l. Univ., Japan
PM23	Effect of Surface Modifications on TiO <sub>2</sub> Photocatalytic Activity	Jun Ho Lee, Byung Hoon Kim, Hoon Kim, Jong Ho Kim, Dong Lyun Cho, Chonnam National Univ., Korea
PM24	Mechanism for Visible light Responsibility of Nitrogen-doped TiO <sub>2</sub>	Hiroshi Irie, Seitaro Washizuka, Yuka Watanabe, Kazuhito Hashimoto, Univ. Tokyo, Japan
PM25	Cancel	
PM26	Fabrication and Photocatalytic Properties of Titanate Nanotube Thin Films via Alternate Layer Deposition	Hiromasa Tokudome, Masahiro Miyauchi, R&D Center, TOTO Ltd. Japan
PM27	Synthesis of TiO <sub>2</sub> -SiO <sub>2</sub> Nanoparticles in a Water-in-Carbon Dioxide Microemulsion and Their Photocatalytic Activity	Seong-Soo Hong, Man Sig Lee, Gun-Dae Lee, Pukyong National Univ., Korea
PM28	The development of a photocatalytic deodorizing apparatus for kitchen exhaust	T. Ando, S. Kato, H. Watanabe, E. Murakami*, H. Kohno*, Noritake Co. Ltd., Japan, *Asahi Kogyosya, Japan

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PA1	TiO <sub>2</sub> and TiO <sub>2</sub> -SnO <sub>2</sub> composite photoanodes for cathodic protection applications	Raghavan Subasri, Tadashi Shinohara, NIMS, Japan
PA2	Photoelectrochemical Anticorrosion of TiO <sub>2</sub> Coated 1Cr18Ni9Ti Stainless Steel during Photocatalytically Decomposing Basic Hydrazine Wastewater	Li Zhang, Pengyi Zhang, Tsinghua Univ., China
PA3	VUV photocatalytic degradation of toluene in the gas phase	Pengyi Zhang, Juan Liu, Zhongliang Zhang, Jiming Luo, Tsinghua Univ., China
PA4	Photocatalytic Degradation of Trichloroethylene in Gas Phase Utilizing TiO <sub>2</sub> -mixed Adsorbent Photocatalyst	Kayano Sunada, Hisae Kiriya, Toshio Isowa, Kazuhito Hashimoto, Univ. Tokyo, Japan

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PA5	Photocatalytic Degradation of Pesticides in Water	Yoko Miyama(a), Kayano Sunada(b), Kazuhito Hashimoto(c), (a)Kanagawa Pref. Agri. Res. Inst., Japan, (b)KAST, Japan, (c)Univ. Tokyo, Japan
PA6	Energy Saving System Using Super-hydrophilic TiO <sub>2</sub> Surfaces Induced by Solar Light	Miyako Iyonaga, EL Mehdi Chatouaki, Kayano Sunada, Nobuo Ohnishi, Kazuhito Hashimoto, Univ. Tokyo, Japan
PA7	Photocatalytic Properties of Membrane Matetials Treated with Titanium Dioxide for Architectural Membrane	Hiroshi Toyoda, Takayuki Nakata, Kazuhiro Abe, Takashi Nohmura, Taiyo Kogyo Co., Japan
PA8	Possibility of mixture of photocatalytic titanium apatite with resin material Photocatalysis: Applications	Noriyasu Aso, Yasuo Naganuma, Masato Wakamura, Kouta Nishii, Fujitsu Laboratories, Japan
PA9	The Cooling Effect of Water Sprinkling Methods on TiO <sub>2</sub> -Coated Tents under Solar Light Irradiation	Koji Oshika <sup>1,2</sup> , Katsuhiko Takagi <sup>2</sup> , Kenichi Tokuhiko <sup>1</sup> , Tetsuya Shichi <sup>1</sup> , Akira Fujishima <sup>1</sup> , <sup>1</sup> JR-Tokai, <sup>2</sup> Nagoya Univ., Japan
PA10	Improvement of air purification with TiO <sub>2</sub> -coated ceramics filter	Sang-Chul Moon <sup>1</sup> , Tetsuo Fukaya <sup>1,2</sup> , Tetsuya Shichi <sup>1</sup> , Akira Fujishima <sup>1</sup> , <sup>1</sup> JR-Tokai, <sup>2</sup> Nagoya Univ., Japan
PA11	Sterilization effect of <i>Salmonella choleraesuis</i> subsp. using titanium dioxide (TiO <sub>2</sub> ) photocatalyst	Yeun-Hwa Lee, Tae Young Kim, Seung Jai Kim, Sung Yong Cho, Chonnam Nat'l Univ., Korea
PA12	Bactericidal of Food Pathogenic Bacteria by TiO <sub>2</sub> Photocatalytic Reactor	Byung-hoon Kim, Hoon Kim, Ho Min, Junho Lee, Seung-ho Ohk, Dong-lyun Cho, Chonnam Nat'l Univ., Korea
PA13	Photocatalytic Degradation of Biological, Chemical and Toxic Agents	N. Eisenreich, W. Liehmann, W. Eckl, J. Neutz, E.Roth, K-D. Thiel, V. Weiser, M. Ohta, Fraunhofer Institute for Chemical Technology, Germany
PA14	Removal of toxic and corrosive gases in wastewater treatment plants by using photocatalysis	Hiroshi Noguchi, Meidensha, Japan
PA15	Photo-catalytic properties of TiO <sub>2</sub> supported layered compounds for dye removal	Shourong Zheng, Nanjing University, China
PA16	Photocatalytic decomposition of H <sub>2</sub> S into hydrogen and sulfur	A.B. Sultanbayeva, N.A.Zakarina, Inst. Organ. Catalysis and Electrochemistry MEAS, Kazakhstan
PA17	Photodegradation of 2,4-Dinitrophenol Using TiO <sub>2</sub> Catalyst Prepared by sol-gel Method	Tae Young Kim, Yoen Hwa Lee, Ung Il Kang, Sun Gyun Rho, Byung Hun Kim, Seung Jai Kim, Sung Young Cho, Chonnam National Univ., Korea
PA18	Modeling and Simulation of Light Guide Boards for a Photocatalytic Deodorizing System	Shouji Usuda <sup>1</sup> , Aiping Chen <sup>2</sup> , Masakazu Anpo <sup>3</sup> , <sup>1</sup> Osaka Pref. College Tech., Japan, <sup>2</sup> East China Univ. Sci. Tech., Shanghai, China, <sup>3</sup> Osaka Prefecture Univ., Japan
PA19	Development of Highly durable Photocatalytic coating material for Architectural glass	Eiichi Kojima, Tetsuya Fukushima, Ayako Ikezawa, Yoshimitsu Saeki, TOTO Ltd. Japan

PD1	Solar Generation System Using Photocatalyst	Yoshihiro Nemoto and Takayuki Hirai, Osaka Univ., Japan
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