

## **VI. List of publications:**

### **1. Thermo- Optical Properties using Optical Fiber Coupled to Laser Diode**

Gamal Abdel Fattah A.ABD EL -MONEM and Y. A. BADR

International Conference , Laser & Applications, Advances in Sciences, Medicin, and Technology NILES 1996 Cairo

### **2. Wax-Oil Complex Thermo-Optical Switching and IR Absorption**

Gamal Abdel Fattah, A.ABD EL-MONEM and Y.A. BADER

2nd Euro-Mediterranean Conference On Application of Photobiology and Laser Technologies in Medicine & Environment (Cairo, February 13-16,1998)

### **3. Nanoscale Flow-Cells and their Application**

Tilmann Rogge<sup>1</sup>, Kristin Mandisloh<sup>1</sup>, Timo Mappes<sup>1</sup>, Martina Schürmann<sup>2</sup>, Axel Rosenhahn<sup>2</sup>, Ahmed Abdelmonem<sup>2</sup>, and Michael Himmelhaus<sup>2</sup>

1 Institut für Mikrostrukturtechnik, Forschungszentrum Karlsruhe, 76021 Karlsruhe

2 AngewandtePhysikalische Chemie, Universität Heidelberg, 69120 Heidelberg

DPG Spring Meeting of the Division Condensed Matter, 21st General Conf.of the Condensed Matter Division of the European Physical Society, Dresden, March 26-31, 2006 Verhandlungen der Deutschen Physikalischen Gesellschaft, R.6, B.41(2006) CPP 24.12.

### **4. Experimental determination of the coverage-height dependence of self-assembled monolayers during film formation**

Ahmed Abd el Monem<sup>1</sup>, Jana Wehrmeister<sup>2</sup>, Mark Helm<sup>2</sup>, and Michael Himmelhaus<sup>1</sup>

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DPG Spring Meeting of the Division Condensed Matter, 21st General Conf.of the Condensed Matter Division of the European Physical Society, Dresden, March 26-31, 2006 Verhandlungen der Deutschen Physikalischen Gesellschaft, R.6, B.41(2006) CPP 17.6.

### **5. An Approach to Real-Time Time-Resolved Sum Frequency Generation Using A Broadband Femtosecond Laser Source**

Ahmed Abd el Monem, Michael Himmelhaus (invited)

IMS symposium "Frontier of Molecular Science Explored by Sum-Frequency Spectroscopy", Okazaki Conference Center, Japan, Dec. 5-6th 2006

### **6. UNDERSTANDING MINERAL/WATER INTERACTION AT THE MOLECULAR LEVEL BY MEANS OF NONLINEAR OPTICS AND QUANTUM CHEMISTRY**

M. Flörsheimer, K. Kruse, R. Polly, A. Abdelmonem, B. Schimmelpfennig, R. Klenze, Th. Fanghänel, (Germany) MIGRATION '07 (München, Germany)

### **7. QUANTUM CHEMICAL DESCRIPTION OF THE INTERACTION OF WATER AND METAL IONS WITH THE SAPPHIRE (001) SURFACE USING CLUSTER MODELS**

R. Polly, M. Flörsheimer, K. Kruse, A. Abdelmonem, B. Schimmelpfennig, R. Klenze, Th. Fanghänel,(Germany, EU) MIGRATION '07 (München, Germany)

### **8. The Functional Species of a Mineral Surface and their Interaction with the Adjacent Water Molecules - Determined by Nonlinear Optics and Quantum Chemistry**

Flörsheimer M, Kruse K, Polly R, Abdelmonem A, Schimmelpfennig B, Klenze R & Fanghänel T

Goldschmidt 2007 - "atoms to planets" August 19 - 24, 2007 (A287) Cologne, Germany

### **9. Coupling linear and nonlinear spectroscopic techniques to precise the interpretations on the molecular level: A Preliminary model for the interaction at aquatic Butanol/Sapphire - 001 interface**

Ahmed AbdElMonem<sup>[1][2]\*</sup>, Johannes Lützenkirchen<sup>[2]</sup>, Horst Geckeis<sup>[2]</sup>, Reinhardt Klenze<sup>[2]</sup>, and Michael Himmelhaus<sup>[3]</sup>

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6th German - Brazilian Workshop on Applied Surface Science 14-19/Sep/2008

### **10. Hydration of Mineral Surfaces Probed at the Molecular Level**

Mathias Flörsheimer, Klaus Kruse, Robert Polly, Ahmed Abdelmonem, Bernd Schimmelpfennig, Reinhardt Klenze, and Thomas Fanghänel

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