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## News Release

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### Heinrich Emanuel Merck Award 2007 Goes to Two Leading Scientists

Darmstadt, March 28, 2007 – The Heinrich Emanuel Merck Award 2007 for Analytical Chemistry will be bestowed this year on two leading scientists – **Professor Dr. Shuming Nie**, the Wallace H. Coulter Distinguished Chair Professor of Biomedical Engineering (Emory University and Georgia Institute of Technology, Atlanta, USA), and **Dr. Alexander A. Makarov** with Thermo Electron GmbH in Bremen, Germany.

Each winner will receive EUR 10,000. The award is intended for chemists aged 45 or younger who are developing new methods of chemical analysis with applications that will benefit mankind. The work should be directed toward the improvement of the human condition, providing solutions to analytical problems in the areas of life sciences, material sciences or the environment.

Professor Nie is being honored for the development of multi-functional nano-particle probes based on semiconductor dots for cancer targeting and imaging. He is known for his numerous contributions to the field of application of quantum-confined particles. Because of their broad excitation profiles and narrow emission spectra, quantum dots are best suited to optical multiplexing to address genes, proteins and small-molecule libraries.

Dr. Makarov is receiving the award for the design and construction of a hybrid mass spectrometer based on a novel electrostatic mass analyzer of the orbitrap type. In this instrument, a linear ion trap mass spectrometer is coupled to an orbitrap mass analyzer via an rf-only trapping quadrupole with a curved axis. The whole configuration allows

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wide mass range analysis with high resolving power, mass accuracy, sensitivity and dynamic range for a wide range of analyses, from small molecules to proteins.

The prizes, which are funded by Merck KGaA, will be awarded for the tenth time during the EUROANALYSIS XIV in Antwerp, Belgium, September 9-14, 2007. The prize winners were selected by a jury of internationally recognized analytical scientists. Jurors decided to award two prizes this year because of the outstanding work being done by both winners.

The Heinrich Emanuel Merck Award was established to mark the centennial anniversary of the first standardization of analytical methods brought about by Merck chemist Dr. Karl Krauch in his book "The Testing of the Purity of Chemical Reagents." The prize bears the name of Heinrich Emanuel Merck, who defined the company's commitment to quality by the claim: "I shall always guarantee the purity of my preparations." Merck KGaA is still a leading producer of chemical reagents used in research laboratories around the world.

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