



In 1963, before become „transistorized”, Dr Csizmadia used a vacuum-tube computer at M.I.T., an IBM 709, to perform the very first Gaussian Quantum Molecular Computation on an organic molecule (HCOF). With this trailblazing accomplishment, the field of organic chemistry become computational. This achievement resulted in the science of chemistry changing from an „empirical” to an „exact” science. Since that time, he has published more than 500 research papers and 13 scientific books.



*Szeged*  
SZEGEDI TUDOMÁNYEGYETEM  
JUHÁSZ GYULA PEDAGÓGUSKÉPZŐ KAR

*50<sup>th</sup> anniversary of the first  
ab initio calculations on  
organic molecules*

*1963-2013*

*Meghívó*

**Programme**  
**10/28/2013**

*Minnutes*

11:00-11:10	<i>Gábor Szabó: Opening remarks of the Rector</i>	10
11:10-11:20	<i>Béla Viskolcz: 50 years of ab initio calculations</i>	10
11:20-11:30	<i>Introduction</i>	10
11:30-12:00	<i>Imre G. Csizmadia: Past and future of mathematical models</i>	30
12:00-12:30	<b>Coffee break</b>	30
12:30-13:00	<i>Lévai Péter: Challenge of "Big Data"</i>	30
13:00-13:30	<i>András Perczel: Protein folding</i>	30
13:30-14:00	<i>Birgit Strodel: Simulation of protein aggregation: The molecular basis for Alzheimer's disease</i>	30
14:00-14:30	<i>Sarah Harris: Architecture of bio structure</i>	30
14:30-14:45	<b>Coffee break</b>	15
14:45-15:15	<i>Svend K. Jensen: Chemistry as a computable exact science</i>	30
15:15-15:45	<i>Martinek Tamás: Future of drug discovery process</i>	30
15:45-16:15	<i>Attila Császár: 4th age of quantum chemistry</i>	30
16:15-16:45	<b>Coffee break</b>	15
16:45-17:00	<i>Imre Jákli: Torus representations of Ramachandran surfaces</i>	30
17:00-17:30	<i>Zoltán Mucsi: Systems chemistry</i>	30
17:30-18:00	<i>Béla Viskolcz: Challenges of Education</i>	30
18:00~	<i>Imre G. Csizmadia: Supper &amp; Round Table Discussion: New way of teaching: CREATIVITY</i>	~
<b>Posters:</b>	<i>Anita Rágyanszki</i>	
	<i>Attila Surányi</i>	
	<i>Balázs Roósz</i>	
	<i>János Szórád</i>	
	<i>Selma Yarligan Uysal</i>	

**Programme**  
**10/29/2013**

*Minnutes*

9:00-9:30	<i>Botond Penke: Misfolded proteins in Alzheimer</i>	30
9:30-10:00	<i>Zoltán Kónya: Challenge of discovery of new materials</i>	30
10:00-10:30	<i>Norbert Búzás: Future of innovation</i>	30
10:30-10:45	<b>Coffee break</b>	15
10:45-11:00	<i>Szilárd Fejér: Coarse-grained modelling of amyloid</i>	15
11:00-11:15	<i>Balázs Jójárt, Béla Fiser: Glutathione - radical recognition process</i>	15
11:15-11:30	<i>Babak Minofar: Biomolecular simulations in non-aqueous media</i>	15
11:30-11:45	<i>David Řeha: Application of QM/MM calculations in biological systems</i>	15
11:45-12:00	<i>Milán Szőri: Evolution at molecular level</i>	15
12:00-12:15	<i>Cimino Franco Prado Andreas: Relative stability of selected biobricks</i>	15
12:15-12:30	<b>Coffee break</b>	15
12:30-12:45	<i>Michael Owen: The effects of hydrogen abstraction on peptide structures</i>	15
12:45-13:00	<i>Klára Gerlei: Atropisomerism of Asn radicals</i>	15
13:00-13:15	<i>Natalie Galant: Theoretical study of disulfid bridges</i>	15
13:15-13:30	<i>István Mándity: High performance organocatalytic transformations in continuous flow</i>	15
13:30~	<i>Imre G. Csizmadia: Closing remarks</i>	~

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„Tudástár” lecture room