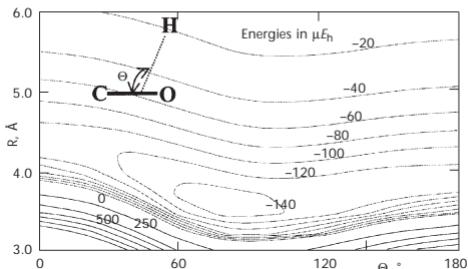


Collect. Czech. Chem. Commun.

2004, 69, 1–12

On the Structure and Physical Origin of the Weak Interaction Between H and CO

Vladimír Lukeš, Viliam Laurinc,
Michal Ilčin and Stanislav Biskupič

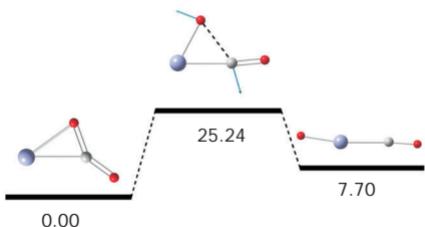


Collect. Czech. Chem. Commun.

2004, 69, 13–33

Theoretical Study on the Mechanism of Reaction of Ground-State Fe Atoms with Carbon Dioxide

Dimitrios A. Pantazis,
Athanasios C. Tsipis and
Constantinos A. Tsipis



Collect. Czech. Chem. Commun.

2004, 69, 34–46

Magnetic Linear Birefringence in Rare Earth Systems. II. Third-Order Approach

Lidia Smentek

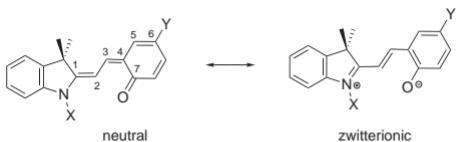
Ce³⁺, Eu³⁺, Gd³⁺, Tb³⁺, Yb³⁺
magnetic anisotropy

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2004, 69, 47–62

Theoretical Study of the Substituent and Solvent Effects on the Molecular Structures, Absorption and Emission Spectra of Open-Form Spiropyrans

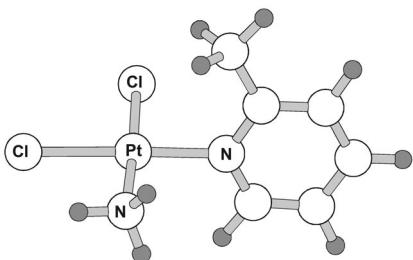
Yinghong Sheng and Jerzy Leszczynski



Collect. Czech. Chem. Commun.
2004, 69, 63–72

**Molecular Structure and Bonding
in Platinum–Picoline Anticancer
Complex: Density Functional Study**

Danuta Michalska and Rafał Wysokiński



Collect. Czech. Chem. Commun.
2004, 69, 73–89

**The Infrared Spectrum of CN in Its
Ground Electronic State**



IR spectrum

Veronika Horká, Svatopluk Civiš,
Vladimír Špirko and Kentarou Kawaguchi

Collect. Czech. Chem. Commun.
2004, 69, 90–104

**Can We Avoid the Intruder-State
Problems in the State-Universal
Coupled-Cluster Approaches While
Preserving Size Extensivity?**

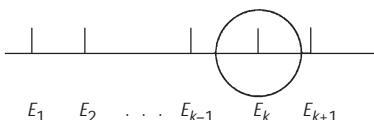
Josef Paldus and Xiangzhu Li

Collect. Czech. Chem. Commun.
2004, 69, 105–120

**Convergence Enhancement
in Perturbation Theory**

Péter R. Surján and Ágnes Szabados

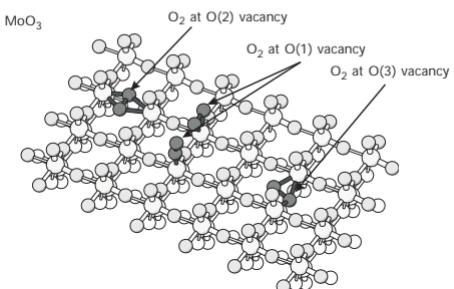
$$t_{P_1 \dots P_k}^{Q_1 \dots Q_k}(i) = - \sum_{P_k} \prod_{\ell=1}^p \langle \Phi_j | (n_\ell !)^{-1} [T_\ell(i)]^{n_\ell} | \Phi_i \rangle$$



Collect. Czech. Chem. Commun.
2004, 69, 121–140

Oxygen Sites at Molybdena and Vanadia Surfaces: Energetics of the Re-Oxidation Process

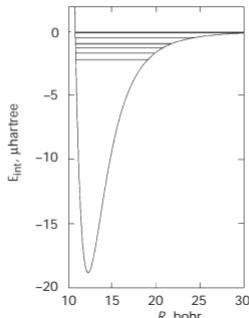
Renata Tokarz-Sobieraj, Robert Grybos,
Małgorzata Witko and Klaus Hermann



Collect. Czech. Chem. Commun.
2004, 69, 141–176

Convergence Behavior of Symmetry-Adapted Perturbation Expansions for Excited States. A Model Study of Interactions Involving a Triplet Helium Atom

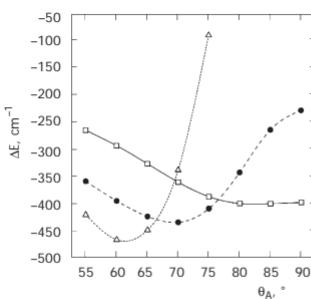
Michał Przybytek, Konrad Patkowski and
Bogumił Jeziorski



Collect. Czech. Chem. Commun.
2004, 69, 177–188

Intermolecular Interactions in the $(\text{CO}_2)_2$, $\text{N}_2\text{-CO}_2$ and CO-CO_2 Complexes

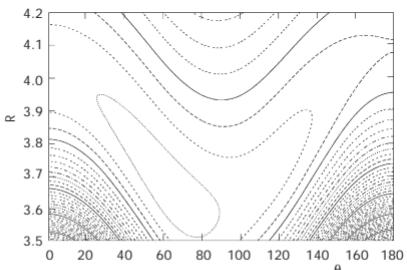
Jiří Fišer, Tomáš Boublík and
Rudolf Polák



Collect. Czech. Chem. Commun.
2004, 69, 189–212

A Coupled Cluster Study of van der Waals Interactions of the He Atom with CN, NO and O₂ Radicals

Juraj Raab, Andrej Antušek,
Stanislav Biskupič and Miroslav Urban

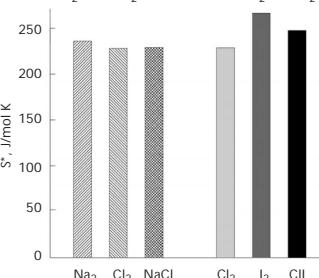


Collect. Czech. Chem. Commun.
2004, 69, 213–230

Additivity of Absolute Entropies

Ivan Černušák, Susan K. Gregurick,
Marjorie Roswell, Carol A. Deakyne,
H. Donald Brooke Jenkins and
Joel F. Liebman

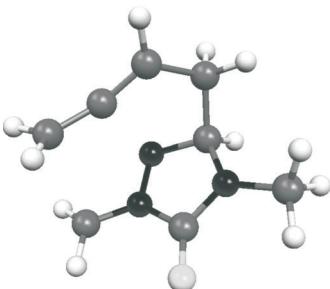
Values of entropy S° for the reactions
 $1/2 \text{Na}_2 + 1/2 \text{Cl}_2 \rightarrow \text{NaCl}$ and $1/2 \text{Cl}_2 + 1/2 \text{I}_2 \rightarrow \text{ClI}$



Collect. Czech. Chem. Commun.
2004, 69, 231–241

Quantum-Chemical Insight Into Mechanism of Combined Intra-Intermolecular Cycloaddition

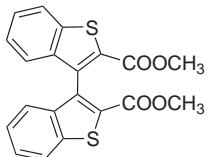
Petr Kulhánek, Milan Potáček and
Jaroslav Koča



Collect. Czech. Chem. Commun.
2004, 69, 242–260

Synthesis and Electrochemical Reduction of Methyl 3-Halo-1-benzothiophene-2-carboxylates

Michal Rejňák, Jiří Klíma,
Jiří Svoboda and Jiří Ludvík



Collect. Czech. Chem. Commun.
2004, 69, 261–266

Formation of Ring A in the Biosynthesis of Hopanoids from Squalene. A Density Functional Study

B. Andes Hess, Jr.

