Collect. Czech. Chem. Commun.
2005, *70*, 851–863

Electronic Spectra and Ionization Potentials of Halogen Oxides Using the Fock Space Coupled-Cluster Method

Nayana Vaval, Prashant Manohar and Sourav Pal

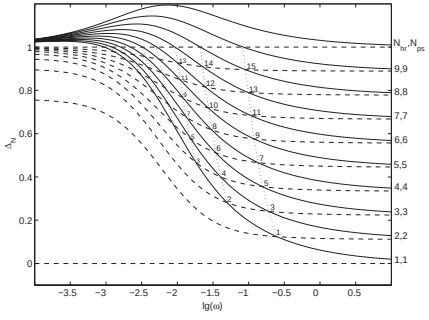
ClO, FO, Cl_2O, F_2O, ClO^-, FO^-

FSCCDS calculations

Collect. Czech. Chem. Commun.
2005, *70*, 864–880

A Class of Exactly Solvable Schrödinger Equations

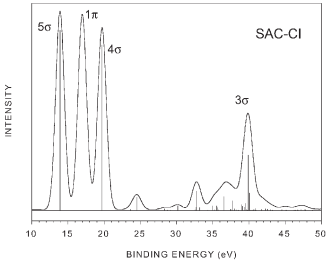
Jacek Karwowski and Lech Cyrnek



Collect. Czech. Chem. Commun.
2005, *70*, 881–904

Theoretical Fine Spectroscopy with SAC-CI Method: Outer- and Inner-Valence Ionization Spectra of CO and N_2

Masahiro Ehara, Mayumi Ishida and Hiroshi Nakatsuji



Collect. Czech. Chem. Commun.
2005, *70*, 905–922

Borrowing Intensity in Rare Earth Doped Materials; Magnetic Dipole Transitions

Brian G. Wybourne, Lidia Smentek and Andrzej Kędziorski

$S(^7F_0 \leftrightarrow {}^5D_0) = S_{ed}(0 \leftrightarrow 0) + S_{md}(0 \leftrightarrow 0)$

Collect. Czech. Chem. Commun.
2005, *70*, 923–940

Electron Affinities of BN, NO and NF: Coupled Cluster and Multireference Configuration Interaction Calculations

Jiří Fišer and Rudolf Polák

BN, NO, NF
Electron affinities
by RCCSD(T) calculation

Collect. Czech. Chem. Commun.
2005, *70*, 941–950

Notes on the Riccati Equation

$$y'(x) = a(x)y^2(x) + b(x)y(x) + c(x)\,, \quad ac \neq 0$$

Eugene S. Kryachko

Collect. Czech. Chem. Commun.
2005, *70*, 951–978

Coupled-Cluster Study of Spectroscopic Constants of the Alkali Metal Diatomics: Ground and the Singlet Excited States of Na_2, NaLi, NaK, and NaRb

Pavel Neogrády, Péter G. Szalay,
Wolfgang P. Kraemer and Miroslav Urban

NaM
M = Li, Na, K, Rb
TD-CCSD calculations

Collect. Czech. Chem. Commun.
2005, *70*, 979–1016

The Hodge Operator in Fermionic Fock Space

Leszek Z. Stolarczyk

$$\mathbb{F} \ni \Psi \rightarrow * \Psi \in \mathbb{F}$$

$$* \Psi = \hat{a}[\Psi]\Omega$$

Collect. Czech. Chem. Commun.
2005, *70*, 1017–1033

Multireference State-Specific Coupled-Cluster Theory and Multiconfigurationality Index. BH Dissociation

$$|\Psi_{\mathrm{CAS(4,4)CCSD}}\rangle = \exp(\hat{T}_1 + \hat{T}_2 + \hat{T}_3(^{A_1 a_1 a_2}_{I_1 i_1 i_2}) + \hat{T}_4(^{A_1 A_2 a_1 a_2}_{I_1 I_2 i_1 i_2}) + \\ + \hat{T}_5(^{A_1 A_2 A_3 a_1 a_2}_{I_1 I_2 I_3 i_1 i_2}) + \hat{T}_6(^{A_1 A_2 A_3 A_4 a_1 a_2}_{I_1 I_2 I_3 I_4 i_1 i_2}))(1 + \hat{C}_1 + \hat{C}_2 + \hat{C}_3 + \hat{C}_4)|0\rangle$$

Vladimir V. Ivanov,
Ludwik Adamowicz and
Dmitry I. Lyakh