

2 Schriftenverzeichnis

Nicht referierte Publikationen

[U1] Engler, G., Seefeld, K., Schmitt, M., Tatchen, J., Grotkopp, O., Müller, T. J. J. und Kleinermanns, K.: *Acetylation Makes All the Difference: A Joint Experimental and Theoretical Study Comparing Low-Lying Excited States of 9H-Adenine and 9-Acetyladenine*. *Phys. Chem. Chem. Phys.* **submitted** (2011)

Erschienenene und angenommene Publikationen

[R68] Brand, C., Meerts, W. L. und Schmitt, M.: *How and Why Do Transition Dipole Moment Orientations Depend on Conformer Structure?*. *J. Phys. Chem. A* **115** (2011), 9612

[R67] Yi, J. T., Brand, C., Wollenhaupt, M., Pratt, D. W., Meerts, W. L. und Schmitt, M.: *Rotationally resolved electronic spectroscopy of biomolecules in the gas phase. Melatonin*. *J. Mol. Spec.* **268** (2011), 115

[R66] Oeltermann, O., Brand, C., Meerts, W. L., Tatchen, J. und Schmitt, M.: *Rotationally resolved electronic spectroscopy of 2,3-bridged indole derivatives: tetrahydrocarbazole*. *J. Mol. Struct.* **933** (2011), 2

[R65] Vu, T. B. C., Brand, C., Meerts, W. L. und Schmitt, M.: *Rotationally resolved electronic spectroscopy of 1,4-benzodioxan: the anomeric effect in ground and electronically excited state*. *ChemPhysChem* **12** (2011), 2035

[R64] Brand, C., Oeltermann, O., Pratt, D. W., Weinkauff, R., Meerts, W. L., van der Zande, W., Kleinermanns, K. und Schmitt, M.: *Rotationally resolved electronic spectroscopy of 5-methoxyindole*. *J. Chem. Phys.* **133** (2010), 024303

[R63] Küpper, J., Pratt, D. W., Meerts, W. L., Brand, C., Tatchen, J. und Schmitt, M.: *Vibronic coupling in indole: II. Investigation of the 1L_a - 1L_b interaction using rotationally resolved electronic spectroscopy*. *Phys. Chem. Chem. Phys.* **12** (2010), 4980

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- [R59] Kalkman, I., Vu, C., Schmitt, M. und Meerts, W. L.: *Structure and internal rotation in the S₀ and S₁ states of o-toluidine studied by high resolution UV spectroscopy. Phys. Chem. Chem. Phys.* **11** (2009), 4311
- [R58] Vu, T. B. C., Kalkman, I., Meerts, W. L., Brand, C., Svartsov, Y. N., Wiedemann, S., Weinkauff, R. und Schmitt, M.: *The conformational landscape of 5-methoxytryptamine studied by rotationally resolved fluorescence spectroscopy and resonant ionization spectroscopy. Phys. Chem. Chem. Phys.* **11** (2009), 2433
- [R57] Böhm, M., Tatchen, J., Krügler, D., Kleinermanns, K., Nix, M. G. D., LeGreve, T. A., Zwier, T. S. und Schmitt, M.: *High-resolution and Dispersed Fluorescence Examination of Vibronic bands of Tryptamine: Spectroscopic signatures for L_a/L_b mixing near a conical intersection. J. Phys. Chem. A* **113** (2009), 2456
- [R56] Böhm, M., Brause, R., Jacoby, C. und Schmitt, M.: *Conformational Relaxation Paths in Tryptamine. J. Phys. Chem. A* **113** (2009), 448
- [R55] Motsch, M., Schenk, M., Zeppenfeld, M., Schmitt, M., Meerts, W. L., Pinkse, P. W. und Rempe, G.: *Spectroscopy of the $\tilde{A}^1A_2 \leftarrow \tilde{X}^1A_1$ transition of formaldehyde in the 30140-30790 cm⁻¹ range: The 2₀¹4₀³ and 2₀²4₀² rovibrational bands. J. Mol. Spec.* **252** (2008), 25
- [R54] Kalkman, I., Vu, C., Schmitt, M. und Meerts, W. L.: *The tunneling splittings in the benzoic acid dimer S₀ and S₁ state determined by high resolution UV spectroscopy. ChemPhysChem* **9** (2008), 1788
- [R53] Vu, T. B. C., Kalkman, I., Meerts, W. L., Svartsov, Y. N., Jacoby, C. und Schmitt, M.: *Rotationally resolved electronic spectroscopy of water clusters of 7-azaindole. J. Chem. Phys.* **128** (2008), 214311(1)
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- [R44] Schmitt, M., Böhm, M., Ratzner, C., Krügler, D., Kleineremanns, K., Kalkman, I., Berden, G. und Meerts, W. L.: *Electronic excitation in the phenol dimer: The intermolecular structure in the S_0 and S_1 state determined by rotationally resolved electronic spectroscopy.* *ChemPhysChem* **7** (2006), 1241
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- [R37] Myszkiewicz, G., Meerts, W. L., Ratzner, C. und Schmitt, M.: *The structure of 4-methylphenol and its water cluster revealed by rotationally resolved UV-spectroscopy using a genetic algorithm approach..* *J. Chem. Phys.* **123** (2005), 044304(1)
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Patente

[P1] Kleineremanns, K. und Schmitt, M.: *Process for processing solid particles containing toxic chemicals. PCT Int. Appl.* (2000). Patent WO 9118671 A1

3 Lehrtätigkeiten

3.1 Vorlesungen

- SS 1996 **Vorlesung mit 2 SWS:**
Laserspektroskopie I
- WS 1996/97 **Vorlesung mit 2 SWS:**
Laserspektroskopie II
- SS 1997 **Vorlesung mit 2 SWS:**
Laserspektroskopische Techniken
- WS 2000/01 **Leitung der Rechenübungen zur Grundvorlesung PC I**
Aufbau der Materie
- WS 2001/02 **Hauptvorlesung PC I mit 4 SWS:**
Aufbau der Materie
- WS 2002/03 **Vorlesung mit 2 SWS:**
Laserspektroskopie
- WS 2004/05 **Hauptvorlesung PC III mit 4 SWS:**
Chemische Kinetik
- WS 2005/06 **Leitung der Rechenübungen zur Vorlesung PC IV**
Kondensierte Materie
- SS 2006 **Leitung der Rechenübungen zur Vorlesung PC II**
Thermodynamik
- WS 2006/07 **Vorlesung mit 2 SWS:**
Molekülspektroskopie I
- SS 2007 **Vorlesung mit 2 SWS:**
Molekülspektroskopie II
- SS 2008 **Leitung der Rechenübungen zur Vorlesung GPC**
Grundlagen der Physikalischen Chemie
- WS 2009/10 **Hauptvorlesung SMKS mit 4 SWS:**
Spektroskopie und Mikroskopie komplexer Systeme
- WS 2010/11 **Vorlesung mit 2 SWS:**
Physikochemische Grundlagen der Umweltchemie
- WS 2011/12 **Vorlesung mit 3 SWS:**
Laserspektroskopie in Gas und kondensierter Phase

3.2 Praktika

- 1990 - 1992** **Versuchsbetreuung im physikalisch chemischen Grundpraktikum, Universität Heidelberg**
Kinetik 1 (Reaktionsgeschwindigkeit von Esterverseifungen)
Kinetik 2 (Kinetik der Saccharose-Inversion)
Thermodynamik 2 (Rektifikation)
- 1993 - 2000** **Versuchsbetreuung im physikalisch chemischen Grund- und Fortgeschrittenenpraktikum, Uni Düsseldorf**
Spektroskopie (Fluoreszenzspektroskopie)
Spektroskopie (Laser-Ramanspektroskopie)
Spektroskopie (IR-Spektroskopie, asymmetrischer Rotor)
- seit 2002** **Leiter des physikalisch chemischen Grundpraktikums, Uni Düsseldorf**