

Publications (Apr.2011 - Mar. 2012)

1. S. Yamaguchi and T. Tahara: "Acid-base equilibrium at aqueous interface: pH spectrometry by heterodyne-detected electronic sum frequency generation", J. Phys. Chem. C, 115, 4168-4173 (2011)
2. M. Iwamura, H. Watanabe, K. Ishii, S. Takeuchi and T. Tahara: "Coherent nuclear dynamics in ultrafast photoinduced structural change of bis-diimine copper (I) complex", J. Am. Chem. Soc., 133, 7728-7736 (2011)
3. S. Yamaguchi, K. Shiratori, A. Morita and T. Tahara: "Electric quadrupole contribution to the nonresonant background of sum frequency generation at air/liquid interfaces", J. Chem. Phys., 134, 184705 (2011)
4. Z. R. Wei, T. Nakamura, S. Takeuchi and T. Tahara: "Tracking of the Nuclear wavepacket motion in cyanine photoisomerization by ultrafast pump-dump-probe spectroscopy", J. Am. Chem. Soc., 133, 8205-8210 (2011)
5. S. Nihonyanagi, T. Ishiyama, T.K. Lee, S. Yamaguchi, M. Bonn, A. Morita and T. Tahara: "Unified molecular view of air/water interface based on experimental and theoretical $\chi^{(2)}$ spectra of isotopically diluted water surface", J. Am. Chem. Soc., 133, 42, 16875-16880 (2011)
6. S. Yamaguchi, H. Watanabe, S. K. Mondal, A. Kundu and T. Tahara: " "Up" versus "down" alignment and hydration structures of solutes at the air/water interface revealed by heterodyne-detected electronic sum frequency generation with classical molecular dynamics simulation", J. Chem. Phys., 135, 194705 (2011)
7. J. Mondal, S. Nihonyanagi, S. Yamaguchi and T. Tahara: "Three distinct water structures at a zwitterionic lipid/water interface revealed by heterodyne-detected vibrational sum frequency generation", J. Am. Soc., in press (2012)
8. S. Nihonyanagi, P. Singh, S. Yamaguchi and T. Tahara: "Ultrafast vibrational dynamics of a charged aqueous interface by femtosecond time-resolved heterodyne-detected sum frequency generation", Bulletin of the Chemical Society of Japan, in press (2012)
9. T. Nakamura, S. Takeuchi, T. Taketsugu and T. Tahara: "Femtosecond fluorescence study of the reaction pathways and nature of the reactive S_1 state of cis-stilbene", Physical Chemistry Chemical Physics, in press (2012)
10. K. Ishii and T. Tahara: "Extracting decay curves of the correlated fluorescence photons measured in fluorescence correlation spectroscopy", Chem. Phys. Lett., 519-520, 130-133 (2012)

Books, Proceedings

1. 田原太平: "界面選択的非線形分光法"、新しい局面を迎えた界面の分子科学 Part II 4 章 113-121、日本化学会編、化学同人 (2011) .
2. 二本柳聡史、山口祥一、J. A. Mondal、田原太平: "新しい非線形分光で明らかになる液体界面の局所分子構造－和周波発生光のヘテロダイン検出－"、光学 40 (8)、415-420 (2011)
3. 山口祥一、細井晴子、田原太平: "二光子吸収材料の非線形光学スペクトル測定"、高効率二光子吸収材料の開発と応用、シーエムシー出版、61-73 (2011)