

Complete list of publications Zsuzsanna Heiner

BOOK, BOOK CHAPTER

Janina Kneipp, Marina Gühlke, **Zsuzsanna Heiner**

Near-Infrared Excited Surface-Enhanced Raman and Hyper Raman Scattering for Microscopic Mapping of Biosamples

Frontiers of Plasmon Enhanced Spectroscopy, ACS Symposium Series, Vol. 1245, Chapter 9, Volume 1, pp 181–200 (2016)

Heiner Zsuzsanna

Bakteriorodopszin és koenzimek femtoszekundumos időfelbontású spektroszkópai vizsgálata
Study of bacteriorhodopsin and coenzymes using femtosecond time-resolved spectroscopy

University of Szeged 2013, PhD Thesis

Heiner Zsuzsanna, Osvay Károly editors

Kvantumoptika és -elektronika legújabb eredményei (Recent Results in Quantum Optics and Electronics)

SzTE, Szeged 2006, ISBN 9634827799

PUBLICATIONS WITH PEER REVIEW PROCESS

- 1. Zsuzsanna Heiner**, Ingrid Zeise, Rivka Elbaum, Janina Kneipp
Insight into plant cell wall chemistry and structure by combination of multiphoton microscopy with Raman imaging
Submitted for publication
- 2. Zsuzsanna Heiner**, Thomas Roland, Jeremie Léonard, Stefan Haacke, Geza I. Groma
Kinetics of light-induced intramolecular energy transfer in different conformational states of NADH
Submitted for publication
- 3. Zsuzsanna Heiner**, Marina Gühlke, Vesna Živanović, Fani Madzharova, Janina Kneipp
Surface-enhanced hyper Raman hyperspectral imaging and probing in animal cells
Nanoscale, **9**, 8024-8032 (2017)
- 4. Zsuzsanna Heiner**, Valentin Petrov, Mark Mero
Compact, high-repetition-rate source for broadband sum-frequency generation spectroscopy
APL Photonics **2**, 066102 (2017)
- Fani Madzharova, **Zsuzsanna Heiner**, and Janina Kneipp
Surface-enhanced hyper-Raman scattering (SEHR) and its applications (Review)
Chem. Soc. Rev. 2017, DOI: 10.1039/C7CS00137A
- Fani Madzharova, **Zsuzsanna Heiner**, and Janina Kneipp
Surface Enhanced Hyper-Raman Scattering of the Amino Acids Tryptophan, Histidine, Phenylalanine, and Tyrosine
The Journal of Physical Chemistry C, **121** (2), 1235-1242 (2017)
- Marta Espina Palanco, Klaus Bo Mogensen, Marina Gühlke, **Zsuzsanna Heiner**, Janina Kneipp, Katrin Kneipp
Templated green synthesis of plasmonic silver nanoparticles in onion epidermal cells suitable for surface-enhanced Raman and hyper-Raman scattering

- Beilstein J. Nanotechnol., **7**, 834–840 (2016)
- 8.** Marina Gühlke, **Zsuzsanna Heiner**, Janina Kneipp
Surface-enhanced hyper-Raman and Raman hyperspectral mapping
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- 9.** Marina Gühlke, **Zsuzsanna Heiner**, Janina Kneipp
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Surface-Enhanced Hyper-Raman Spectra of Adenine, Guanine, Cytosine, Thymine, and Uracil
The Journal of Physical Chemistry C, **120** (28), 15415-15423 (2016)
- 11.** Marina Gühlke, **Zsuzsanna Heiner**, Janina Kneipp
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- 12.** M. Gühlke, **Z. Heiner**, J. Kneipp
Combined near-infrared excited SEHRS and SERS spectra for pH sensors using different silver nanostructures
Phys. Chem. Chem. Phys., **17** (39), 26093-26100 (2015)
- 13.** **Z. Heiner**, A. Makai, F. Sarlós, C. Bagyinka, A. Tóth, G. Rákhely, G. I. Groma
Fluorescence Kinetics of Flavin Adenine Dinucleotide in Different Microenvironments
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- 14.** **Z. Heiner**, T. Roland, S. Haacke, G. I. Groma
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- 15.** G. I. Groma, **Z. Heiner**, A. Makai, F. Sarlos
Estimation of kinetic parameters from time-resolved fluorescence data: A compressed sensing approach
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- 16.** L. Fábíán, **Z. Heiner**, M. Mero, M Kiss, E. Wolff, P. Ormos, K. Osvay, A. Dér
Protein-based ultrafast photonic switching
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- 17.** L. Fábíán, **Z. Heiner**, M. Mero, M Kiss, E. Wolff, P. Ormos, K. Osvay, A. Dér
Subpicosecond all-optical switching by the protein bacteriorhodopsin
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- 18.** P. Ormos, L. Fabian, **Z. Heiner**, M. Mero, M. Kiss, E. K. Wolff, K. Osvay, A. Der
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- 19.** Pal Ormos, L. Fabian, **Z. Heiner**, M. Mero, M. Kiss, E. Wolff, K. Osvay, A. Der
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- 20.** A. Borzsonyi, **Z. Heiner**, A.P. Kovacs, K. Osvay, M. Kalashnikov
Pressure dependent nonlinear refractive index of inert gases
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- 22.** **Z. Heiner**, K. Osvay
Refractive Index of Dark-Adapted Bacteriorhodopsin and TRIS Buffer between 390-880 nm
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- 23.** **Z. Heiner**, K. Osvay
Measurement of the concentration dependent refractive index of dark-adapted wild-type bacteriorhodopsin in 390-880 nm
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- 24.** K. Osvay, A. Börzsönyi, **Z. Heiner**, A.P. Kovács, M.P. Kalashnikov
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- 25.** A. Borzsönyi, **Z. Heiner**, A.P. Kovacs, K. Osvay, M. Kalashnikov
Dispersion measurement of inert gases and gas mixtures at 800 nm
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- 27.** M. Csete, N. Kresz, Cs. Vass, G. Kurdi, **Zs. Heiner**, M. Deli, Zs. Bor, O. Marti
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- 28.** K. Osvay, A. P. Kovács, G. Kurdi, **Z. Heiner**, M. Divall, J. Klebiczki, I. E. Ferincz
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- 31.** J. Vinko, I.B. Biro, B. Csak, S. Csizmadia, A. Derekas, G. Furesz, **Z. Heiner**, K. Sarneczky, B. Sipocz, G. Szabo, R. Szabo, K. Sziladi, K. Szatmary
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- 32.** A. Derekas, L.L. Kiss, Gy.M. Szabó, G. Fűrész, K. Sárnechky, **Zs. Heiner**
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1. **Zsuzsanna Heiner**, Freeda Yesudas, Valentin Petrov, Mark Mero: „*Hyperspectral imaging based on surface enhanced hyper-Raman spectroscopy*”, ICAVS 2017, June 11-16, 2017, Victoria, BC Canada (Oral)
2. **Zsuzsanna Heiner**, Freeda Yesudas, Janina Kneipp, Valentin Petrov, Mark Mero: „*Compact broadband vibrational sum-frequency generation spectrometer at 100 kHz*”, ICAVS 2017, June 11-16, 2017, Victoria, BC Canada (Poster)
3. **Zsuzsanna Heiner**, Marina Gühlke, Vesna Zivanovic, Fani Madzharova, Janina Kneipp: „*Combination of surface enhanced Raman and hyper-Raman imaging using hyperspectral analysis*”, Molecular Plasmonics, May 18-20, 2017, Jena, Germany (Oral)
4. Fani Madzharova, **Zsuzsanna Heiner**, Janina Kneipp: „*Surface-enhanced hyper-Raman and Raman scattering of biomolecules on silver nanostructures*”, Molecular Plasmonics, May 18-20, 2017, Jena, Germany (Poster)
5. **Zsuzsanna Heiner**: „*Plasmonic nanosensing with hyper-Raman micro-spectroscopy*” HiOS, April 10-12, 2017, Graal-Müritz, Germany (**Invited Talk**)
6. **Zsuzsanna Heiner**, Freeda Yesudas, Valentin Petrov, Mark Mero: „*Compact and turn-key 100-kHz triple-beam laser source for broadband sum-frequency vibrational spectroscopy*”, ECONOS 2017, April 2-5, 2017, Jena, Germany (Poster)
7. Fani Madzharova, **Zsuzsanna Heiner**, Janina Kneipp: „*Surface enhanced hyper-Raman scattering from biomolecules*”, Fourth Annual Conference on Optical Nanospectroscopy, March 28-31, 2017, Lisbon, Portugal (Oral)
8. **Zsuzsanna Heiner**, Marina Gühlke, Fani Madzharova, Vesna Zivanovic, Janina Kneipp: „*Combined surface enhanced Raman and hyper-Raman hyperspectral imaging for bio-applications*”, 252nd ACS National Meeting & Exposition, August 21-25, 2016, Philadelphia, USA (Oral)
9. **Zsuzsanna Heiner**, Marina Gühlke, Fani Madzharova, Vesna Zivanovic, Janina Kneipp: „*Combined surface enhanced Raman and hyper-Raman hyperspectral imaging for bio-applications*”, ICORS, August 14-19, 2016, Fortaleza, Brazil (Oral)
10. Janina Kneipp, Daniela Drescher, Tina Büchner, Vesna Živanović, **Zsuzsanna Heiner**, Marina Gühlke, Fani Madzharova: „*Surface enhanced hyper Raman and Raman scattering from biomolecules and cells*”, ICORS, August 14-19, 2016, Fortaleza, Brazil (Invited Talk by J. Kneipp)
11. Fani Madzharova, **Zsuzsanna Heiner**, Janina Kneipp: „*Surface enhanced hyper-Raman spectroscopic study of DNA and RNA nucleobases*”, School of Photonics 2016: "Plasmonics and Nano-Optics", July 2016, Cortona, Italy (Poster)
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13. J. Kneipp, **Z. Heiner**, M. Gühlke, F. Madzharova, T. Büchner, D. Drescher: „*Combined one- and two-photon NIR excited surface enhanced Raman scattering for bio-applications*” The International Chemical Congress of Pacific Basin Societies 2015, December 14 - 20, 2015, Honolulu, Hawaii, USA (Invited Talk by J. Kneipp)
14. Janina Kneipp, Tina Büchner, Zsuzsanna Heiner, Marina Gühlke, Daniela Drescher, Fani Madzharova, Stephan Seifert: „*Extending the capabilities of SERS in studies of cells*”, FT-IR Spectroscopy in Microbiological and Medical Diagnostics, Berlin, 15.-16.10.2015 (Invited Talk by J. Kneipp)

15. I. Zeise, Z. Heiner, S. Holz, C. Büttner, J. Kneipp: „*Microspectroscopic Raman Imaging of Cucumber Plant Tissues*”, Workshop FTIR Spectroscopy in Microbiological and Medical Diagnostics, Berlin, Germany, 15.-16.10.2015 (Poster)
16. Marina Gühlke, Zsuzsanna Heiner, Janina Kneipp: „*Study of combined one-and two-photon excited SERS-nanosensors for bio-applications*”, Workshop FTIR Spectroscopy in Microbiological and Medical Diagnostics, Berlin, Germany, 15.-16.10.2015 (Poster)
17. Janina Kneipp, Zsuzsanna Heiner, Marina Gühlke, Fani Madzharova, Tina Büchner, Daniela Drescher: „*Combined NIR excited surface enhanced Raman and hyper-Raman scattering for bio-applications*“, 2nd International Conference on Enhanced Spectroscopies ICES, Messina, 11-14.10.2015 (Invited Talk by J. Kneipp)
18. J. Kneipp, T. Büchner, D. Drescher, **Z. Heiner**, M. Gühlke, F. Madzharova, V. Merk: „*One- and two-photon NIR-excited surface enhanced Raman scattering to probe complex biological environments*“, 16th European Conference on the Spectroscopy of Biological Molecules, September 06 - 10, 2015 in Bochum, Germany (Invited Talk by J. Kneipp)
19. **Z. Heiner**, T. Roland, J. Leonard, S. Haacke, G.I. Groma: „*Kinetics of excitation energy transfer in NADH*“ 12th Femtochemistry Conference (FEMTO12), July 12 – 17, 2015, Hamburg, Germany (Poster)
20. **Z. Heiner**, M. Gühlke, J. Kneipp: „*Investigation of combined one- and two-photon NIR excited surface enhanced Raman scattering nanosensors for bio-applications*“ CLEO Europe 2015, June 21-26, 2015, Munich, Germany (Oral)
21. M. Gühlke, **Z. Heiner**, J. Kneipp: „*Examination of different silver nanostructures for near infrared excited surface-enhanced Raman and hyper-Raman scattering*“ Molecular Plasmonics 2015, May 7-9, 2015, Jena, Germany (Oral)
22. M. Gühlke, **Z. Heiner**, J. Kneipp: „*Combination of near-infrared excited surface-enhanced Raman and hyper Raman scattering in an optical pH-sensor*“ 2nd Optical Nanospectroscopy Conference, March 18-20, 2015, Dublin, Ireland (Poster)
23. J. Kneipp, M. Gühlke, **Z. Heiner**: „*NIR-excited combined SERS and SEHRS using different plasmonic substrates*” SERS Round Table 2015, March 4-6, 2015, Duisburg, Germany (Invited Talk by J. Kneipp)
24. **Z. Heiner**, M. Gühlke, J. Kneipp: „*Investigation of plasmonic nanostructures for multiphoton spectroscopic applications based on pH-sensing*“ COST Phototech Training School 2014, October 18-23, 2014, Szeged, Hungary (**Invited Talk**)
25. M. Gühlke, **Z. Heiner**, J. Kneipp: „*Hyper-Raman scattering in local fields of different plasmonic nanostructures*“ ICORS 2014, August 11-15, 2014, Jena, Germany (Poster)
26. M. Gühlke, **Z. Heiner**, J. Kneipp: „*Investigation of plasmonic nanostructures for surface enhanced hyper Raman scattering based pH-sensing*“ Surface-Enhanced Spectroscopies 2014, August 7-10, 2014, Chemnitz, Germany (Poster)
27. V. Merk, M. Gühlke, **Z. Heiner**, J. Kneipp: „*Mix-and-match surfaces for spectroscopy at the nanoscale*“ COST First Annual Conference on Optical Nanospectroscopy 2014, March 24-28, 2014, Tübingen, Germany (Oral)
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29. **Z. Heiner**, A. Makai, F. Sarlós, G. I. Groma: *A compressed sensing approach for kinetic parameter estimation from time-resolved fluorescence data*

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Ultrafast time-resolved fluorescence of Flavine Adenine Dinucleotide
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- 33.L. Fábián, Z. Heiner**, M. Mero, M. Kiss, E. K. Wolff, P. Ormos, K. Osvay, A. Dér
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- 34.Pal Ormos, L. Fabian, Z. Heiner**, M. Mero, M. Kiss, E. Wolff, K. Osvay, A. Der
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- 36.L. Fábián, Z. Heiner**, M. Mero, M. Kiss, E.K. Wolff, P. Ormos, K. Osvay, A. Der
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- 39.L. Fábián, M. Mero, Z. Heiner**, K. Osvay, A. Dér
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Ultrafast, Protein-Based All-Optical Switching
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- 42.A. Dér, L. Fábián, Z. Heiner**, M. Kiss, M. Mero, K. Osvay
Ultrafast all-optical switching and dispersion of the protein Bacteriorhodopsin
ICOOPMA10 2010, Budapest, Hungary (Invited Talk by K. Osvay)
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Ultrafast fluorescence kinetics measurement based on up-conversion method

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45.Borzsonyi, A; **Heiner, Z;** Kovács, AP; Kalashnikov, M; Osvay, K

Interferometric Measurement of Nonlinear Refractive Index of Inert Gases at Various Pressures

Nonlinear Photonics 2010, Karlsruhe, Germany. Paper: 10-C-868-NP (Poster)

46.Z. Heiner, L. Fábíán, M. Merz, M. Kiss, A. Dér, K. Osvay

Ultragyors optikai fénykapcsolás fehérjével ("Ultrafast optical switching with protein")

Fizikus Vándorgyűlés / Hungarian Physics Symposium, Pécs, Hungary (2010) (**Invited Talk**)

47.L. Fábíán, **Z. Heiner**, M. Mero, M. Kiss, E. K. Wolff, P. Ormos, K. Osvay and A. Dér

Protein-based ultrafast photonic switching

Straub Days, 2010, Szeged, Hungary (Oral)

48.Z. Heiner, A. Makai, F. Sarlós, G.I. Groma

Ultrafast fluorescence kinetics measurements based on up-conversion method

Straub Days, 2010, Szeged, Hungary (Poster)

49.Z. Heiner, K. Osvay

Measurement of the Concentration Dependent Refractive Index of Dark-Adapted Wild-type Bacteriorhodopsin in 390-880 nm

CLEO®/Europe-EQEC 2009, Munich, Germany, paper: CL1.2 THU (Oral)

50.K. Osvay, Á. Börzsönyi, **Z. Heiner**, A.P. Kovács, M.P. Kalashnikov

Measurement of Pressure Dependent Nonlinear Refractive Index of Inert Gases

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53.K. Osvay, A. Börzsönyi, **Z. Heiner**, A.P. Kovács, M. Kalashnikov

Pressure dependent nonlinear refractive index of inert gases

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- 57.**A.Börzsönyi, K.Osvay, A.P.Kovács, **Zs.Heiner**, M.P.Kalashnikov:
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- 62.****Z. Heiner**, G. Szalay, K. Osvay
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- 63.**G.Szalay, **Z.Heiner**, K.Osvay
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- 64.**K.Osvay, A.P.Kovács, **Zs.Heiner**, M.Csatári, Zs.Bor, G.Kurdi, M.Görbe, J.Klebiczki, I.E.Ferincz:
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- 65.****Z. Heiner**, M. Csatári, J. Klebiczki, A. Kovács, G. Kurdi, K. Osvay
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Fizikus Vándorgyűlés / Hungarian Physics Symposium, Szombathely, Hungary, P16, 2004 (Poster)
- 66.**K.Osvay, G.Kurdi, A.Kovács, J.Klebiczki, M.Görbe, **Z. Heiner**, M. Csatári, I.Ferincz, Zs. Bor
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- 67.**A.P. Kovács, K. Varjú, G. Kurdi, K. Osvay, **Zs. Heiner**, J. Klebiczki, M. Csatári:
Experimental investigation of angular dispersion in ultrashort pulses having Gaussian spatial profile
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- 68.**K. Osvay, G. Kurdi, A. P. Kovács, **Zs. Heiner**, M. Csatári, J. Klebiczki, I. E. Ferincz:
Measurement of residual angular dispersion and temporal lengthening of femtosecond pulses due to misalignment of pulse compressors
Ultrafast Optics IV, Vienna, Austria, 2003 (Poster)
- 69.**P. Kovács, K. Varjú, G. Kurdi, K. Osvay, **Z. Heiner**, J. Klebiczki, M. Csatári
Ultrarövid lézerimpulzusok szögdiszperziójának kísérleti vizsgálata ("Experimental investigation of angular dispersion of ultrashort laser pulses")
Kvantumelektronika / Quantum electronics 2003, Budapest, Hungary, paper P26, 2003 (Poster)

70.K. Sárneczky, J. Vinkó, Gy. M. Szabó, G. F_{rész}, B. Csák, R. Szabó, Sz. Csizmadia, Zs. Bebesi, **Zs. Heiner**, Sz. Mészáros, B. Sipöcz:

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IAU Colloquium 1192, Supernovae - 10 years of SN 1993J, Valencia, Spain, 2003 (Poster)

MINOR PLANET DISCOVERIES

Discoveries and named of 7(+6) minor planets:

<i>Minor Planet Name</i>	<i>Discovery Date</i>	<i>Discoverer</i>
37432 Piskéstető	11. Jan 2002	Krisztián Sárneczky, Zsuzsanna Heiner
95179 Berkó	16. Jan 2002	Krisztián Sárneczky, Zsuzsanna Heiner
111570 Ágasvár	11. Jan 2002	Krisztián Sárneczky, Zsuzsanna Heiner
126245 Kandókálmán	13. Jan 2002.	Krisztián Sárneczky, Zsuzsanna Heiner
131762 Csonka	11. Jan 2002	Krisztián Sárneczky, Zsuzsanna Heiner
131763 Donátbánki	11. Jan 2002	Krisztián Sárneczky, Zsuzsanna Heiner
166028 2002 AR204	11. Jan 2002	Krisztián Sárneczky, Zsuzsanna Heiner
<i>Provisional (but numbered)</i>		
64974 Savaria	11. Jan 2002	Krisztián Sárneczky, Zsuzsanna Heiner
111594 Ráktanya	11. Jan 2002	Krisztián Sárneczky, Zsuzsanna Heiner
126315 Bláthy	13. Jan 2002	Krisztián Sárneczky, Zsuzsanna Heiner
151242 Hajós	11. Jan 2002	Krisztián Sárneczky, Zsuzsanna Heiner
159629 Brunszvik	16. Jan 2002	Krisztián Sárneczky, Zsuzsanna Heiner
194970 Márai	13. Jan 2002	Krisztián Sárneczky, Zsuzsanna Heiner

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