CV of Emőke Lőrincz

Personal data

Name	Emőke Lőrincz
Position	Honorary professor
Current institution	Department of Atomic Physics, Budapest University of Technology and Economics 1111 Budapest, Budafoki út 8 Hungary
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Date of birth	1951

Education

1974	physicist, ELTE Hungary
1995	PhD in Physics "I. Coherent optical process and equipment for roughness measurement of diffuse surfaces, II. Integrated optical application of nonlinear optical polymers", ELTE Hungary

Employment

1974-02/1978	scientific co-worker	Hungarian Optical Works
02/1978-07/1981	assistant lecturer	BME, Hungary
07/1981-07/1997	assistant professor	BME, Hungary
07/1997-07/2013	associate professor	BME, Hungary
07/2013-	honorary professor	BME, Hungary

Research interest

- Laser physics
- Laser applications
- Applied optics
- Applied physics

Teaching activity

- Laser physics
- Laser techniques
- Applied laser techniques

Students supervised

- Msc students:
  Róbert Klug (1992)

Szabolcs Gaál (1994)
István Bagi (1995)
István Várkonyi and Imre Mattern (1997)
György Nádudvari and Ferenc Ujhelyi (1998)
Árpád Kerekes and Szilárd Sajti (1999)
Zsolt Toperczer (2000)
Károly Szkenderovics (2002)
Attila Sághy and Tamás Csékmány (2006)
Cecília Steinbach (2009)
András Kufcsák (2014)

- PhD students:
  Szilárd Sajti (2003)
  Árpád Kerekes (2004)
  Judit Reményi (2005)
  Ferenc Ujhelyi (2007)
  Cecília O. Steinbach (2017)

Grants, fellowships, projects (since 1982)

1995-1997	OTKA T 016318 "Investigation of integrated optical devices based on non-linear polymers"
1995-2005	Research and development of different optical memory systems including page organized optical memory card reader/writer and polarization holographic system. Cooperation partners: Optilink AB, RISØ National Laboratory, National Committee for Technological Development (OMFB) grant No. H 9305-02/1015, OTKA T 022135 and M 36468, OMFB-01050/2003 and 791/2003, Optilink Hungary, Bayer Innovation GmbH
2003-2006	Széchenyi István Fellowship
2004-2006	OTKA T-046667 "Materials and systems for high density data recording" (10m Ft)
2004-2007	FP6-2003-IST-2 "ATHOS - Advanced Technology for Holographic Storage" (85,427 EUR)
2010-2013	OTKA CK 80892 "Scintillation material for medical imaging purpuses" (15m Ft)
2010-2015	FP7-ICT Grant No. 257914 "SPADnet - Fully Networked, Digital Components for Photon-starved Biomedical Imaging Systems" (223,540 EUR)

Invited talks

2001	"Polarization holographic data storage system", Fourth Annual Meeting of the COST Action P2, 16-19 May 2001, Budapest
2002	"Different solutions of high density holographic data storage", Kick Off Meeting of the COST Action P8, Materials and Systems for Optical Data Storage and Processing, June 24-25 2002, Berlin
2003	"Polarization holographic data storage using azobenzene polyester as storage material", Photonic West, Optoelectronics 2003, 25-31 January 2003. San Jose, California, USA
2006	"High density holographic data storage", ESF 2.5 (European Structure Funds)

project of Institute of Physics and Vilnius University "Training of highest level specialists in laser and optical technologies", Vilnius, Lithuania.

Languages

English (master), German (beginner), French (beginner)

Scientific impact (as of 05/2019)

42 papers in refereed journals
67 conference papers
1 books, 2 book sections
28 European patents
Total number of independent citations: 494
H-index: 14
Complete list of publications:
https://m2.mtmt.hu/gui2/?type=authors&mode=browse&sel=10008529&view=simpleList

Five selected publications

1. G. Erdei, N. Berze, A. Péter, B. Játékos, E. Lőrincz, *Refractive index measurement of cerium-doped $Lu_xY_{2-x}SiO_5$ single crystal*, Optical Materials **34** (5), 781-785 (2012).
2. E. Lőrincz, G. Erdei, I. Péczeli, C. Steinbach, F. Ujhelyi, T. Bükki, *Modeling and optimization of scintillator array for PET detectors*, IEEE Transactions on Nuclear Science **57**, 48-54, (2010).
3. J. Reményi, P. Várhegyi, L. Domján, P. Koppa, E. Lőrincz, *Amplitude, phase, and hybrid ternary modulation modes of a twisted-nematic liquid-crystal display at similar to 400 nm*, Applied Optics **42** (17), 3428-3434, (2003).
4. E. Lőrincz, P. Koppa, F. Ujhelyi, P. Richter, G. Szarvas, G. Erdei, P.S. Ramanujam, *Rewritable holographic memory card system*, In: Douglas, G Stinson; Ryuichi, Katayama (eds.) Optical Data Storage 2000, New York, USA, IEEE, 161-163 (2000).
5. E Lőrincz, P Richter, F Engárd, *Interferometric statistical measurement of surface roughness*, Applied Optics **25** (16), 2778-2784, 1986.