

List of Publications

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Patents

1. Yasmeen Haque, Sharif Md. Sharafuddin, Manash Kanti Biswas, **Md. Enamul Hoque** (2019) US Patent Application No. US 16/504339, Method and System Based on Nonlinear Optical Characteristics of Body Fluids for Diagnosis of Neoplasia (applied)
2. Yasmeen Haque, Sharif Md. Sharafuddin, Manash Kanti Biswas, **Md. Enamul Hoque** (2019) Bangladesh Patent Application No. BD 188/18, Method and System Based on Nonlinear Optical Characteristics of Body Fluids for Diagnosis of Neoplasia (applied)

Journal Articles

1. **E Hoque**, MK Biswas, HM Syfuddin, SM Sharafuddin, SK Das, Y Haque, *Nonlinear optical characteristic curve of protein (BSA)*, Journal of Optics, P: 1-5 (2020), DOI: 10.1007/s12596-020-00631-5
2. **Md Enamul Hoque**, *Estimation of the number of affected people due to the Covid-19 pandemic using susceptible, infected and recover model*, International Journal of Modern Physics C, P: 2050111 (2020), DOI: 10.1142/S0129183120501119
3. **ME Hoque**, SK Das, *A Conjectural Experiment to Observe the Effect of Conditional locked-down in an Epidemic*, arXiv preprint arXiv:2005.06767 (2020)
4. **Md. Enamul Houqe**, Moushumi Das, Manash K. Biswas, Anock Somadder, Muhammad O Faurk, Sharif M. Sharafuddin, Nazia Chawdhury, Susanta K Das and Yasmeen Haque, *Effect of dipolar and quadrupolar contribution in first hyperpolarizability of dimethylaniline*, Journal of Optics, Vol. 46, P: 37 (2017).
5. M. K. Biswas, P. K. Das, **E. Hoque**, S. M. Sharafuddin, S. K. Das and Y. Haque, *Optical properties of benzene by the single thermal lens technique*, Journal of Nonlinear Optical Physics and Materials, Vol. 26, P: 1750025 (2017)
6. UK Mazumder, A Somadder, **E Hoque**, Y Haque, SK Das, HMS Gupta, *Analysis of the normal optical, Michel and molecular potentials on the $40\text{Ca}(6\text{Li}, d)44\text{Ti}$ reaction*, Pramana 86 (6), 1275-1286 (2016).
7. M. K. Biswas, **E. Hoque**, S. M. Sharif, S. K. Das and Y. Haque, *Single beam Z-scan for the calculation of nonlinear refractive index (n_2) for poly(2,5-dimethylaniline)*, Journal of Nonlinear Optical Physics and Materials, Vol. 24, P: 1550039 (2015)
8. **E. Hoque**, A. Somadder, U. K. Mazumder, Y. Haque and S. K. Das, *A DWBA Study of $60,62,64\text{Ni}(\alpha, t)61,63,65\text{Cu}$ Reactions Using Different Optical Potentials*, SUST Journal of Science and Technology, Vol. 21, P: 37 (2015).
9. M. M. Tasnim, K. Chakrabarty, M. K. Biswas, **E. Hoque**, S. M. Sharafuddin, Y. Haque, *Measurement of the nonlinear refractive index of 2, 5-dimethylaniline by a new technique using Mach-Zehnder interferometer*, Journal of Nonlinear Optical Physics and Materials, Vol. 24, P: 1550004 (2015)

10. Ponkog K. Das, Manash K. Biswas, **Enamul Hoque**, Anock Somadder, Muhammad O. Faruk, Sharafuddin Md. Sharif, Nazia Chawdhury, Susanta K. Das, Yasmeen Haque, *Nonlinear refractive index of 2, 5-Dimethylaniline in methanol by Z-scan technique*, Journal of Optics, Vol. 44, P: 146 (2014)
11. **E. Hoque**, M. K. Biswas, A. Somadder, M. O. Faruk, S. M. Sharif, N. Chawdhury, S. K. Das, Y. Haque, *Nonlinear refractive index of Hibiscus Rosa-Sinensis by CW laser*, Journal of Optics, Vol. 42, P: 286 (2013).
12. A. Somadder, **E. Hoque**, U.K. Mazumder, Y. Haque and S.K. Das, *A DWBA study of the $^{48}\text{Ca}(\alpha, t)^{49}\text{Sc}$ reaction using shallow (molecular), deep non-monotonic, Michel and normal optical potentials*, Eur. Phys. J. A, Vol. 49, P: 73 (2013).
12. U. K. Mazumder, A. Somadder, **E. Hoque**, S. K. Das and H. M. Sen Gupta, *$^{40}\text{Ca}(^6\text{Li}, d)^{44}\text{Ti}$ Reaction and Effect of Three Potentials on the Spectroscopic Factors*, SUST Journal of Science and Technology, Vol. 16, No.2 P:62-71 (2012).

Conference Articles

1. Numerical Analysis of Inverted pendulum Introduction, Mash-Huda Shipra, Khan Mahmud Enamul Hasan, Aakiful Islam, **Md. Enamul Hoque**, National Conference on Physics, University of Dhaka, (February 2019).
2. Numerical Analysis of the Dynamics of Two Charged Particles System, Shakir Ahmed, Mahiyath K Chowdhury, **E. Hoque**, National Conference on Physics, University of Dhaka, (February 2019).
3. Non-linear Optical Response of Blood Serum before and after Administration of Chemotherapy Drug, S Bhattacharjee, A. K. M. M Hossain, H Ara, **E Hoque**, S M Sharafuddin and Y Haque, National Conference on Physics, University of Dhaka, (February 2019).
4. TeLiSc OS: A Diskless Cluster Operating System for High Performance Computing, Md. Shafayet Islam, Md. Sakibul Islam, **Md. Enamul Hoque**, 3rd Student Conference on Science & Engineering (SCSE), Department of Electrical and Electronic Engineering, University of Dhaka, 24th November, 2018.
5. Effect of Sample Orientations on Z-scan and Profile of Laser beam: R. Rahaman, R. Das, A. Somadder, **E. Hoque**, M. K. Biswas, S. M. Sharafuddin, and Y. Haque, International Conference on Physics - 2018, Auditorium, Teacher-Student Centre, Dhaka University, Dhaka, 08-10 March, 2018
6. Effect of different solvents for the quantification of human serum albumin, H. Ara¹, M. A. Razib¹, S. M. Selim Al-din², M. K. Biswas¹, E. Haque¹, S. A. Tarek S. M. Sharafuddin¹ and Y. Haque, International Conference on Material Science and Semiconductor Devices (ICMSSD)-2018, Dhaka University, 7-8 September, 2018
7. Two Beam Time-Resolved Z-scan Technique and Transient Thermal Lens Formation: R. Kormokar, M. K. Biswas, P.K. Das, **E. Hoque**, S. M. Sharafuddin, S.K. Das and Y. Haque, International Conference on Physics - 2017, Auditorium, Teacher-Student Centre, Dhaka University, Dhaka, 05-06 January, 2017
8. Single Beam Thermal lens Technique for Measuring the Change in Optical Properties of Toluene. : M. K. Biswas, P. K. Das, **E. Hoque**, S. M. Sharafuddin, S. K. Das and Y. Haque, International Conference on Physics - 2017, Auditorium, Teacher-Student Centre, Dhaka University, Dhaka, 05-06 January, 2017

9. Numerical Analysis of Fluid Flow by Navier-Stokes Equation, S M Shah Riyadh, **E. Hoque**, Susanta Kumar Das, 2nd INTERNATIONAL BOSE CONFERENCE - 2015, December 2015
10. The Runge-Kutta Method for Simulating a Dynamical System, **E. Hoque**, Jibril Ahammad, S. Halder, S. K. Das, National Conference on Physics Research and Education in BangladeshAt: Atomic Energy Centre, Dhaka, April 2015
11. Simulation of Thermal Steady State Time for Materials, **E. Hoque**, Md. Mahfuzzaman, Shamsad Tazmin, Susanta Kumar Das, National Conference on Physics Research and Education in BangladeshAt: Atomic Energy Centre, Dhaka, April 2015
12. Effective Contribution of Second Harmonic Generation in Nonlinear Optical Scattering, **E. Haque**, M. Das, M. K. Biswas, A. Somadder, M. O. Faruk, S. M. Sharif, N. Chawdhury, S. K. Das, Y. Haque, International Conference on Physics for Energy and Environment, Atomic Energy Centre, Dhaka, Bangladesh (06-08 March, 2014).
13. Nonlinear Phase Shift and Refractive Index of 2,5 dimethylaniline by the Modified Mach-Zehnder Interferometric Technique, M. Tasnim, K. Chakrabarty, M. K. Biswas, **E. Haque**, A. Somadder, M. O. Faruk, S. M. Sharif, N. Chawdhury, S. K. Das, Y. Haque, International Conference on Physics for Energy and Environment, Atomic Energy Centre, Dhaka, Bangladesh (06-08 March, 2014).
14. Measurement of nonlinear refractive index of 2,5 di-methyl aniline (DMA) by z-scan technique using cw laser, P K Das, M. K. Biswas, **E. Haque**, A. Somadder, M. O. Faruk, S. M. Sharif, N. Chawdhury, S. K. Das, Y. Haque, International Conference on Advances in Physics 2013, Shahjalal University of Science and Technology, Sylhet, Bangladesh (03-05 January, 2013).
15. Single beam z-scan for the calculation of n_2 for poly dimethyle aniline, M. K. Biswas, **E. Haque**, A. Somadder, M. O. Faruk, S. M. Sharif, N. Chawdhury, S. K. Das, Y. Haque, International Conference on Advances in Physics 2013, Shahjalal University of Science and Technology, Sylhet, Bangladesh (03-05 January, 2013).
16. Theoretical Investigation of Solvent Effect on the Hyperpolarizability of Monomer and Dimer of DMA, Z. Abdullah, **E. Haque**, M. K. Biswas, A. Somadder, M. O. Faruk, S. M. Sharif, N. Chawdhury, S. K. Das, Y. Haque, International Conference on Advances in Physics 2013, Shahjalal University of Science and Technology, Sylhet, Bangladesh (03-05 January, 2013).
17. Measurement of Nonlinear Refractive Index with the Self-Action Method, M. R. Kader, **E. Haque**, M. K. Biswas, A. Somadder, M. O. Faruk, S. M. Sharif, N. Chawdhury, S. K. Das, Y. Haque, International Conference on Advances in Physics 2013, Shahjalal University of Science and Technology, Sylhet, Bangladesh (03-05 January, 2013).
18. First Hyperpolarizability of 2, 5 dimethylaniline by Hyper Rayleigh Scattering Technique, M. A. T. Khan, U. K. Chowdhury, P. D. Tithi, **E. Haque**, M. K. Biswas, A. Somadder, M. O. Faruk, S. M. Sharif, N. Chawdhury, S. K. Das, Y. Haque, International Conference on Advances in Physics 2013, Shahjalal University of Science and Technology, Sylhet, Bangladesh (03-05 January, 2013).
19. Estimation of Hyperpolarizability to the fundamental limit by Monte Carlo Simulation, **E. Haque**, M. K. Biswas, A. Somadder, M. O. Faruk, S. M. Sharif, N. Chawdhury, S. K. Das, Y. Haque, National Conference on Advances in Physics 2012, Shahjalal University of Science and Technology, Sylhet, Bangladesh (28-29 February, 2012).

20. Nonlinear Optical Properties of Roselle Hibiscus by Z-Scan Technique, **E. Haque**, M. K. Biswas, A. Somadder, M. O. Faruk, S. M. Sharif, N. Chawdhury, S. K. Das, Y. Haque, National Conference on Advances in Physics 2012, Shahjalal University of Science and Technology, Sylhet, Bangladesh (28-29 February, 2012).