Title: Near-field Enhancement characteristics of double-helix Au nanostructures.

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Abstract: Metallic nanostructures with helical shapes feature a broad spectrum of interesting radiation and polarization characteristics that can largely be controlled by varying their geometrical parameters. I systematically studied the near-field radiation characteristics of diffractively coupled gold (Au) dna-shaped nano-helices in the optical regime when different parameters were subjected to change. The parameters include inner radius, outer radius, length and cyclicity. By doing so, I demonstrate that the engineering of their geometrical parameters provides novel opportunities to achieve highly directional scattering along multiple directions with controlled polarization states in the visible regime.

Biography: Aanal Shah is currently a final semester student of Electronics and Communication Engineering at L.D. College of Engineering. She has published a research paper in a reputed journal and has applied for a patent. She is preparing for applying to PhD courses in physics.

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