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Title:	Controlling the LSPR properties of Au triangular nanoprisms and nanoboxes by geometrical parameter: A numerical investigation
Authors:	Sekhon, J.S. (/jspui/browse?type=author&value=Sekhon%2C+J.S.) Verma, S.S. (/jspui/browse?type=author&value=Verma%2C+S.S.)
Keywords:	LSPR nanoprisms nanoboxes geometrical parameter
Issue Date:	2015
Publisher:	Taylor & Francis
Citation:	Journal of Modern Optics, 62(6) pp. 435-440
Abstract:	We have simulated the extinction spectra of Au triangular nanoprisms and nanoboxes by finite difference time domain method. It is found that the refractive index sensitivity increases linearly and near exponentially as the aspect ratio of nanoprisms increases and wall thickness of nanoboxes decreases, respectively. A sensing figure of merit (FOM) calculation shows that there is an optimum wall thickness for each edge length and height of the box, which makes them to be promising candidates for effective sensing applications. We have also shown that the higher FOM in triangular nanoboxes compared to the cubic nanoboxes and other solid structure is inherent in the shape of nanoparticles
URI:	<a href="https://www.tandfonline.com/doi/full/10.1080/09500340.2014.954650">https://www.tandfonline.com/doi/full/10.1080/09500340.2014.954650</a> ( <a href="https://www.tandfonline.com/doi/full/10.1080/09500340.2014.954650">https://www.tandfonline.com/doi/full/10.1080/09500340.2014.954650</a> ) <a href="http://hdl.handle.net/123456789/2945">http://hdl.handle.net/123456789/2945</a> ( <a href="http://hdl.handle.net/123456789/2945">http://hdl.handle.net/123456789/2945</a> )
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