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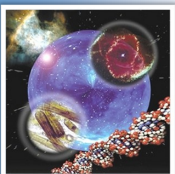
Friday, February 18, 2011

Time: 3:00 p.m. - 4:00 p.m.

BB 3.04.18

Metamaterials: Low Loss and Gain

Optical loss caused by absorption in metal and a need for active control are among the major challenges of plasmonic metamaterials. Both can be addressed by utilizing optical gain. Recent efforts aimed at the reduction of loss and the stimulated emission in nanoplasmonic systems with gain will be discussed. Many plasmonic systems would benefit even more from loss reduction techniques, which do not require optical gain. Several prospective gain-less solutions of the loss problem, including modification of electronic surface states and n-doping of noble metals, will be reviewed.



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