

Colloquium Nanophotonique

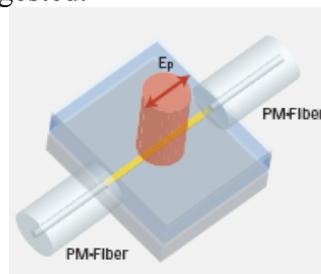
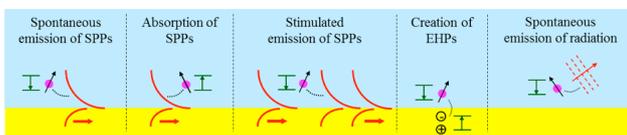
Amplification and lasing with surface plasmons

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Surface plasmon-polaritons (SPPs) are TM-polarised optical surface waves guided by a metal-dielectric interface at optical wavelengths. Under the right circumstances, optical processes (*e.g.*, spontaneous/stimulated emission and absorption) may occur with SPPs as they interact with gain media, ultimately leading to SPP amplification and oscillation (lasing). Although surface plasmon amplifiers and lasers have been topics of investigation for about three decades, demonstrations of both have only recently been reported. These topics are reviewed and discussed, their status is assessed, and directions for future research are suggested.



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Lundi 26 Novembre 2012 à 11h