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## NUMERICAL METHOD TO STUDY AN SPR SENSOR

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The applied studies based on the resonance of the surface Plasmon's are particularly interesting for different stains; notably the utilization as sensors. Indeed, several studies carried, with the aide of the numeric simulations, on the optimization of the performances of the static and dynamic sensors thus that on some bio-sensors.

Some works on the process of realization of the midget sensors to optic fiber are in progress [1]. The elaboration and the characterization one SPR sensor is therefore the objective of our work, this type of sensor having a good sensitivity and a good precision necessitates some conditions of preparation, on the excitation system, in this paper we present some profiles permitting the exploitation of the technique like bio-sensor.

Others works on SPR sensors has to use optic fibers using the optic configuration of Kretschmann allowed to reach some substantial results notably in the domain of the cosmetics or alimentary. The results are obtained has it helps some analytic patterns in order to describe the SPR resonance in an optic fiber, in taking into account at the same time of the variations of angles and some variations of lengths of wave[ 3,4]

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