

## PHYSICS

### Advanced Edit

LIBS is an elemental analysis technique that is based on the excitation of atoms located on ~~the sample material's~~ surface; ~~this excitation is induced~~ by focusing a pulsed laser beam ~~on the surface~~. ~~The M~~material ~~can be ablated in~~ concentrations ranging from ~~ng~~nanograms to ~~ug~~micrograms ~~can be ablated by using~~ this technique, ~~producing~~ ~~generating~~ a microplasma ~~that~~which can be characterized by several ~~of~~ parameters. After the ~~creation~~generation of the ~~micro~~plasma, electromagnetic radiation is emitted ~~owing to~~under several processes, namely, ~~the~~ bremsstrahlung ~~process~~, recombination, and de-excitation of atoms and ions ~~occurring inside~~in the laser plume [1]. ~~The D~~de-excitation of atoms and ions leads to light emission ~~at~~with a characteristic frequency, which can be used ~~for~~in both ~~the~~ qualitative and ~~the~~ quantitative determinations.

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Comment [A1]: Please provide the full form of this abbreviation, since it appears to be its first mention in the main text.