DIFFERENCE BETWEEN SPONTANEOUS & STIMULATED EMISSION

OR

COMPARISON BETWEEN SPONTANEOUS & STIMULATED EMISSION

SPONTANEOUS EMISSION	STIMULATED EMISSION
Emission takes place without any stimulus energy.	Emission takes place with the help of stimulus energy.
It was postulated by Bohr.	It was postulated by Einstein.
1 photon is emitted in spontaneous emission.	2 photons are emitted in stimulated emission.
Emitted radiation is incoherent.	Emitted radiation is coherent.
Polychromatic radiation.	Monochromatic radiation
Emitted radiation is low intensity & directional.	Emitted radiation is highly intense & directional.
More angular spread.	Less angular spread.
Can be utilized in ordinary light / LED.	Can be utilized in laser light.
It happens after lifetime of e^- in excited state.	It happens within lifetime of e^- in excited state.
The direction of emitted photons may be distinct.	The direction of emitted photon will be same as incident photon
It is a random & probabilistic process.	It is not a random process.
It is a random & probabilistic process.	It is not a random process.