Q&A

- Q. What is the difference between the first room-temp maser and the maser introduced in this paper?

- A. Previously, the first room temperature maser can be operated only as pulse. It is because the gain medium, p-terphenyl has poor thermal, mechanical properties, and decay rate of triplet sublevel of pentacene is too fast to make continuous operation.

Q&A

- Q. When the increasing magnetic field is applied, it seems lasing frequency varies continuously. Why the frequencies of the laser in this paper are discrete?

- A. Because the cavity supported $\mathrm{TE}_{01\delta}$ mode resonating at 9.22 GHz, the frequencies of the laser are discrete. In principle, it seems that if we vary the strength of magnetic field, we can manipulate the transition frequency between the ground state and the excited state

Q&A

- Q. Why did they use a sapphire ring?

- A. The cavity comprised a sapphire ring resonator housed centrally within a copper cavity. So the sapphire ring is needed to resonate the emission from stimulated emission and the copper cavity is needed to make maser signal output by coupling between an antenna and $\mathrm{TE}_{01\delta}$ mode.