Yttrium Iron Garnet (YIG) has been integrated onto SOI devices
- Garnet is the best magneto-optical material with low loss
- Garnet usually cracks when grown onto semiconductors (1)...
- .. or incomplete crystallization (2)

Proper processing can overcome integration challenges
- Garnet coats inside and outside of SOI (Si-on-Insulator) photonic crystals (1)
- Fully-crystallized garnet on waveguides without cracks. (2)