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Porous diamond-like-carbon films deposited using pulsed plasma sputtering and pulsed laser deposition techniques[1] BOQIAN YANG, HONGXIN ZHANG, XINPENG WANG, PETER FENG, University of Puerto Rico — The ordering porous diamond-like-carbon (PDLC) thin films are prepared on silicon substrate using pulsed plasma sputtering deposition and pulsed laser deposition techniques. Scanning electron micoscope, X-ray diffraction and Raman scattering are employed to characterize the morphology and bonding structures of the porous carbon networks. Different structures and properties of the PDLC thin films prepared using two deposition techniques have been identified. The effect of high d.c. bias voltage on the properties of the PDLC films is studied.

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