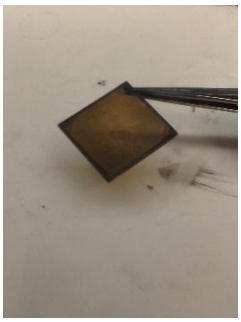
BCSIR Dhaka Laboratories, BCSIR

Product Name	Portable Rechargeable Spin Coater
Area	Laboratory, Industry
Uses	Depositing layer of thin film

Spin Coater



Spin Coated thin film

Thin-film technology attracts substantial attention in the field of materials science and semiconductor processing because of its low-cost fabrication setup usage. Thin-film based solar cells, LEDs, and conducting and semiconducting layers have been deposited by various methods such as molecular beam epitaxy (MBE), physical vapor deposition (PVD), electron beam evaporation, thermal evaporation, sol-gel, chemical vapor deposition (CVD), chemical bath deposition (CBD), spin coating deposition etc. Among the different techniques, spin coating is popular because of its capability of large area deposition, production of compact, coherent and adherent film, low processing temperature and more importantly flexibility in the selection of any kind of substrate. Traditional spin coater uses a powerful vacuum pump to suck the substrate and sophisticated motors to rotate the substrate which ultimately increases its production cost.

Major Raw Material	MS-sheet, Tube (PVC), Cover (Acrylic), Brass break knob, Screw key knob, Spinner box (Teflon), Spinner SH gripper (Variable), Spinner SH gripper (Fixed), Screw, Switches and Cables LCD (16x4) display, electronic circuitry for Dual power (AC/DC), Rechargeable Li-ion Battery, BLDC motor
Major Plant Equipment/Machinery	Lathe machine, Shaper machine, Vertical drill saw, Hand drill, Angle grinder, Drill set (top), Hand band saw (sheet cutter), Manual bending machine
Details of specific application	This product is mainly used to deposit layer of thin film on substrate which can be glass, steel etc. Coating material is dropped on the substrate which is spun in a specific speed to coat the sample surface homogenously and uniformly by utilizing the centrifugal force of the spinner.
Status of Development	This process is accepted by the BCSIR authority.
Ecological/Environmental Impact (if any, specify briefly)	Environment friendly and after commercialization this product able to fulfill our national demand.
Techno-Economics	Available on demand
Cost of product	50,000 Tk/pc

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