The users are advised to read the following instructions carefully before they fill the requisition form for booking time on the PPMS facility:

I. **About the booking:**

a) The user can book the PPMS facility *for a maximum duration of 2 days*.

b) The booking will be *open only for next 10 working days*.

c) *Fridays will be reserved for users from outside department*. However, booking request must be submitted by *5:00 pm of Wednesdays*, failing which Friday will be booked for users from Physics department.

For such users, the online booking will be made by facility coordinator.

d) In order to minimize the waiting time for other users, the faculty is requested to sign the requisition form *after a minimum gap of 5 days from the end of the previous booking*.

e) From the day the requisition form is submitted, the earliest booking can be made for the following day.

f) To minimize the waiting time on PPMS, *the change of VSM assembly to Hall-effect assembly, if needed, will be done on Monday*. This will help timely booking for the users requiring Hall-effect measurements.

g) Faculty members should ensure that the online PPMS booking will be made only after the requisition is signed by the PPMS coordinator.

h) The data will be sent to user at the e-mail ID provided by the user.

i) User should acknowledge the facility utilization while preparing the MS by writing “*PPMS EVERCOOL-II facility at IIT Delhi*”.

II. **About the measurements:**

a) The following measurements can be done employing PPMS facility:

(i) Magnetization vs. field, *M-H* (bulk & films),

(ii) Magnetization vs. temperature, *M-T* (bulk samples only),

(iii) *ac-Hall effect* (bulk & films).

b) The PPMS lacks the required sensitivity to carry out the *M-T measurement on films*.

c) Maximum field available is ±70 kOe. The temperature range is 2-380 K.

d) For *Hall effect*, the *current range is 0.1mA-2A @ 1Hz-1 kHz*, & the *sample resistance* should be <100Ω (Maximum available compliance voltage is ±5V)

e) Prior to booking, the users can estimate the total measurement time by assuming that it takes ~2 min per data point in case of M-H measurement and ~10 min per data point in case of M-T measurement.

f) *Powder samples* require pelletization at user’s end.

g) The *sample-size* should be 3x4 mm² *(max)* for M-H & 5x5 mm² *(min)* for Hall Effect.

h) For *Hall effect* measurements, the users are encouraged to take the responsibility for making contacts.

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