# Supporting information for Lithium storage in disordered graphitic material: a semi-quantitative study of the relationship between the disordering and the capacity

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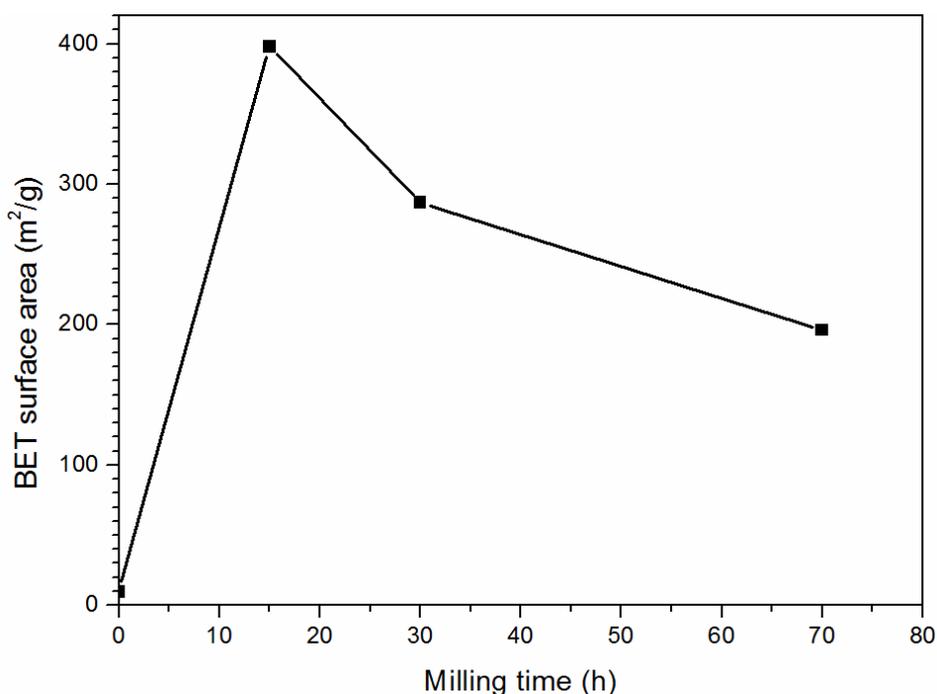
**Fig.S1** BET surface area of CG and ball-milled samples.

The special surface area change during ball milling process has been explained in previous reports [17]
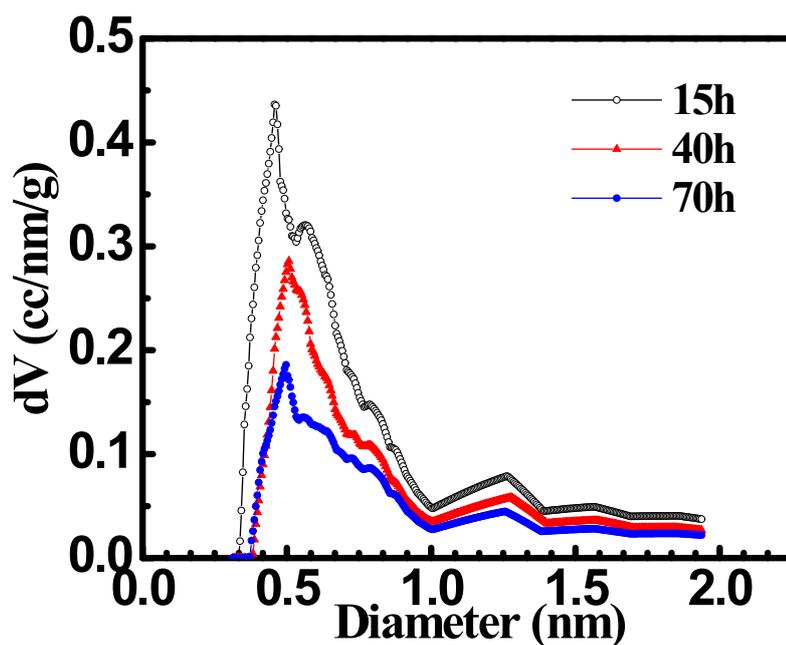
Figure S2. Pore size distribution of the graphite milled for different time.

Nitrogen sorption isotherms were obtained using a Quantachrome Autosorb automated gas sorption system at -196 oC. Specific surface areas and pore size distributions were calculated using the Brunauer-Emmett-Teller (BET) theory and the Horvath-Kawazoe (HK) method based on the adsorption branches. Specific pore volumes were measured at a relative pressure of 0.99.

Table S1 The coulombic efficiency of Ar 15, 70 h and CG electrodes during the first cycle

| Sample | Coulombic efficiency (%) |
|--------|--------------------------|
| CG | 51.39 |
| Ar-15 | 40.85 |
| Ar-30 | 43.63 |
| Ar-70 | 59.70 |