

Supplementary material

Table S1 Design factors and levels for response surface experiments

| Standard | Factor | | |
|----------|-----------------------|----------------------------|-----------------------|
| | Ball milling time (h) | Ball milling speed (r/min) | sonication time (min) |
| 1 | 0.5 | 300 | 30 |
| 0 | 1 | 400 | 40 |
| -1 | 1.5 | 500 | 50 |