**Supporting information**

**S3 Table Variance analysis of La3+ adsorption on SA-PGA.**

|  |  |  |  |
| --- | --- | --- | --- |
| Source of variance | Degree of freedom | Sum of square | F |
| SA | 2 | 74.086 | 1.239 |
| PGA | 2 | 58.698 | 0.982 |
| CaCl2 | 2 | 86.855 | 1.452 |
| Glutaraldehyde | 2 | 19.569 | 0.327 |
| Error | 2 | 22.310 |  |
| Total | 10 | 261.581 |  |