

# Graphene Quantum Dots Doped Viscoelastic Lyotropic Liquid

## Crystal Nanocolloids for Antibacterial Applications

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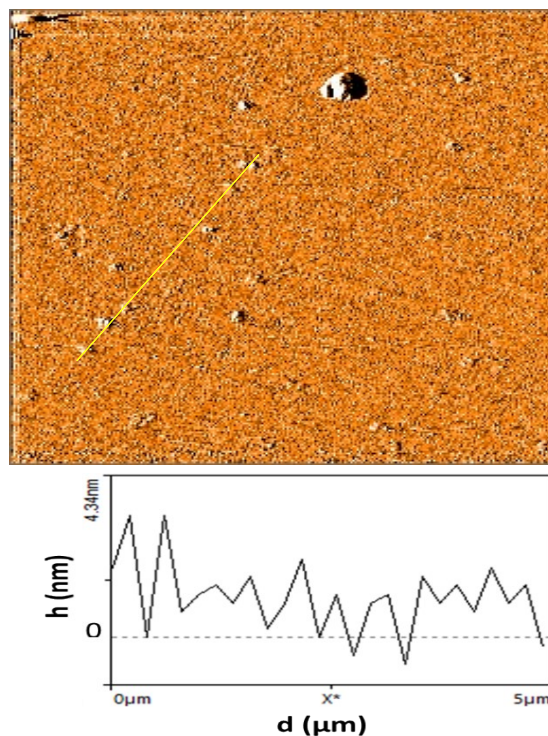
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### Supplementary Information



**Figure S1:** AFM image of GQDs. The height profile of GQDs are shown below of image.

**Table S1:** Parameters of power-law fitting model for LLCs and GQDs/LLCs nanocolloids.

Sample	Region 1		Region 2	
	n	R <sup>2</sup>	n	R <sup>2</sup>
10:90 wt%	0.05	0.99	0.16	0.99
30:70 wt%	0.06	0.99	0.23	0.99
5mg (10:90 wt%)	0.03	0.99	0.19	0.99
10mg (10:90 wt%)	0.09	0.99	0.34	0.99
5mg (30:70 wt%)	0.06	0.99	0.17	0.99
10mg (30:70 wt%)	0.09	0.99	0.18	0.99

**Table S2:** Parameters of power-law fitting model for LLCs and GQDs/LLCs nanocolloids.

Sample	Lower frequency region (<10 Hz)		Higher frequency region (>10 Hz)	
	G'	G''	G'	G''
	10:90 wt%	Showing the dependent frequency behavior in range 1-100 Hz		
30:70 wt%	Showing the dependent frequency behavior in range 1-100 Hz			
5mg (10:90 wt%)	0.07	0.07	0.51	0.70
10mg (10:90 wt%)	0.09	0.10	0.58	0.49
5mg (30:70 wt%)	0.01	0.06	0.50	0.61
10mg (30:70 wt%)	0.06	0.08	0.56	0.34

**Table S3:** Parameters of Herschel-Bulkley fitting on complex modulus and frequency for LLCs and GQDs/LLCs nanocolloids.

Sample	Herschel Bulkley fitting		
	$G_y^*$	$n$	$R^2$
10:90 wt%	12991.00	0.43	0.99
30:70 wt%	2552.46	0.57	0.99
5mg (10:90 wt%)	15347.69	0.52	0.98
10mg (10:90 wt%)	9158.24	0.73	0.99
5mg (30:70 wt%)	9878.56	0.53	0.99
10mg (30:70 wt%)	3122.33	0.41	0.99