

Appendix A

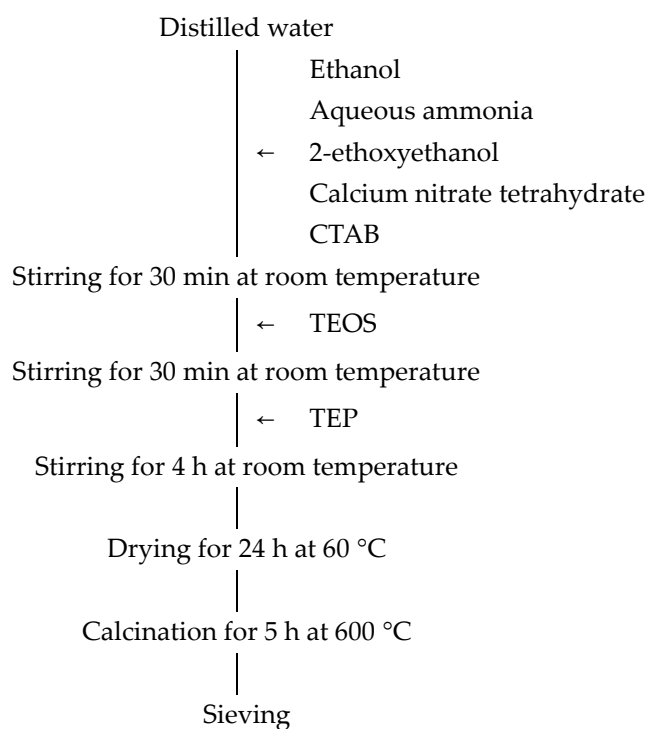


Figure S1. Flow chart of mesoporous bioactive glass nanoparticle (MBN) synthesis.

CTAB, cetyl trimethyl ammonium bromide; TEOS, tetraethyl orthosilicate; TEP, triethyl phosphate.

Table S1. Components of CharmFil Flow.

Composition
Bis-GMA
Barium glass (Range of particle size: 0.7 μm)
Triethyleneglycol dimethacrylate
Diurethane dimethacrylate
Others

Table S2. Compositions of demineralising and remineralising solutions.

Demineralising solution (pH 4.4)		Remineralising solution (pH 7.0)	
Calcium 2.0 mmol/L	$\text{Ca}(\text{NO}_3)_2 \cdot 4\text{H}_2\text{O}$	Calcium 1.5 mmol/L	$\text{Ca}(\text{NO}_3)_2 \cdot 4\text{H}_2\text{O}$
Phosphate 2.0 mmol/L	KH_2PO_4	Phosphate 0.9 mmol/L	KH_2PO_4
Acetic acid 75.0 mmol/L	CH_3COOH	KCl 130.0 mmol/L	KCl
		Sodium cacodylate 20.2 mmol/L	$\text{NaC}_2\text{H}_6\text{AsO}_2 \cdot 3\text{H}_2\text{O}$