

TABLE 10.3 The Drug/Growth Factor Category for Mesoporous Bioactive Glass Materials (Wu and Chang, 2012)

Mesoporous Bioactive Glass	Composition	Drug/Growth Factor	Loading Efficiency (%)	Burst Release (%) at Day 1	Delivery Time
Particles	58Si36Ca6P 80Si15Ca5P 80Si15Ca5P	Gentamicin Ibuprofen Ipriflavone	36–48 35 1–11	28–60 25–45, 90	>10 days
Discs	100Si 90Si5Ca5P 80Si15Ca5P 70Si25Ca5P	Tetracycline Metoclopramide Phenanthrene	10–18 15–45 5.15	15–30 40–55 70	>5 days
Spheres	100Si 85Si10Ca5P	Triclosan Ibuprofen Bovine serum albumin	9.1–10.7 20 4–16	30 100 2.5–25	>14 days
Fibers	70Si25Ca5P	Gentamicin	5.5–14.4	60–80	>4 days
Scaffolds	80Si15Ca5P 80Si15Ca5P 80Si15Ca5P 100Si	Gentamicin Dexamethasone VEGF BMP	11 16 90 –	70 20–50 0.2 –	>7 days
Composites	80Si15Ca5P 80Si15Ca5P	Gentamicin/naproxen Dexamethasone	1.1 5.4	30–50 50	>10 days