

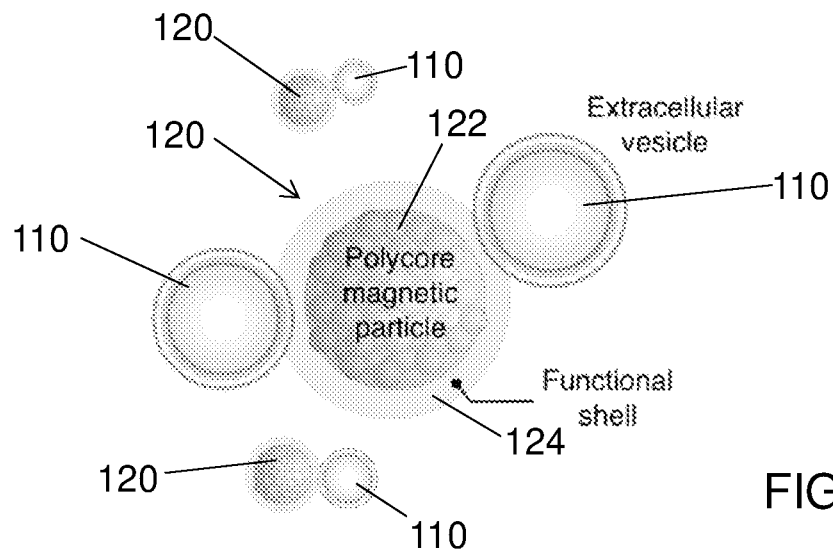


FIG. 1A

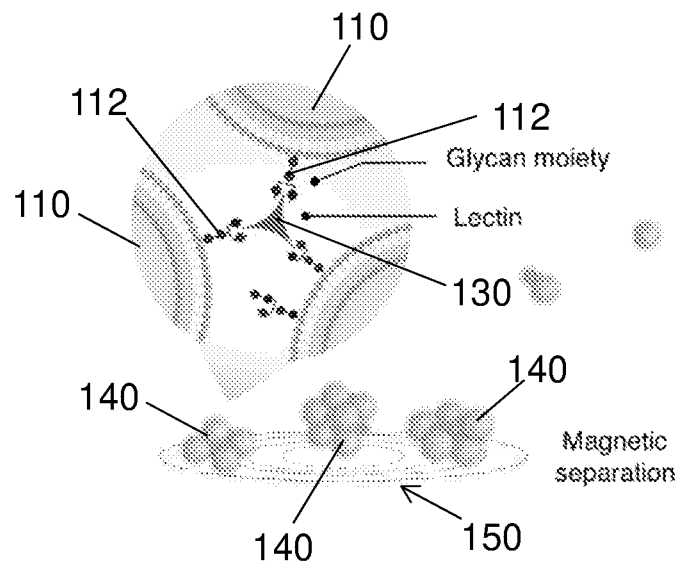


FIG. 1B

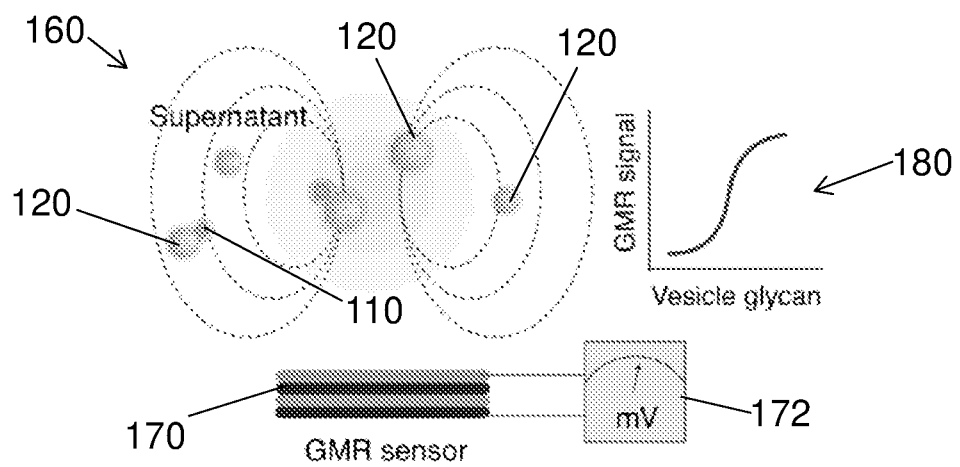


FIG. 1C

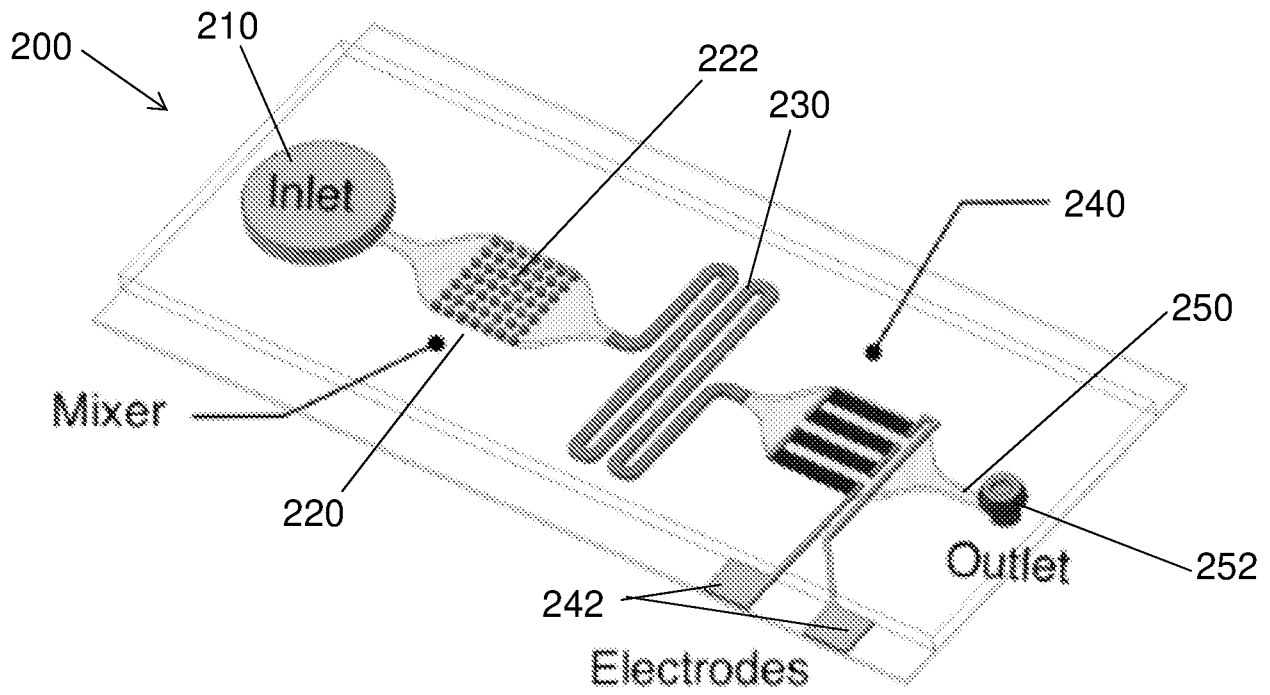


FIG. 2

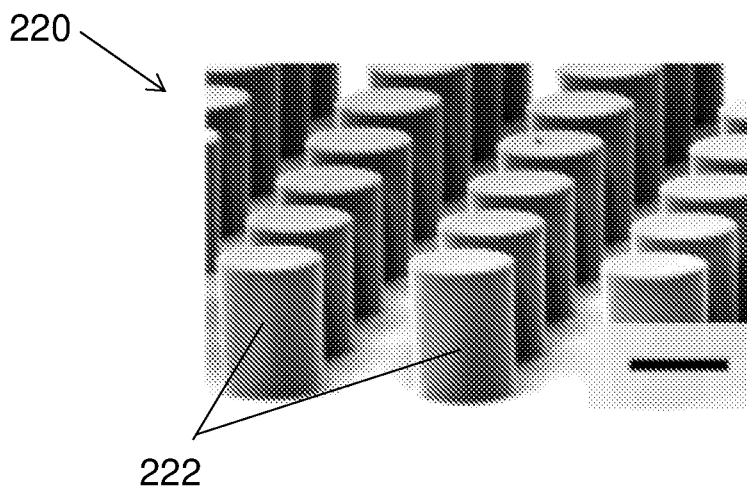


FIG. 3A

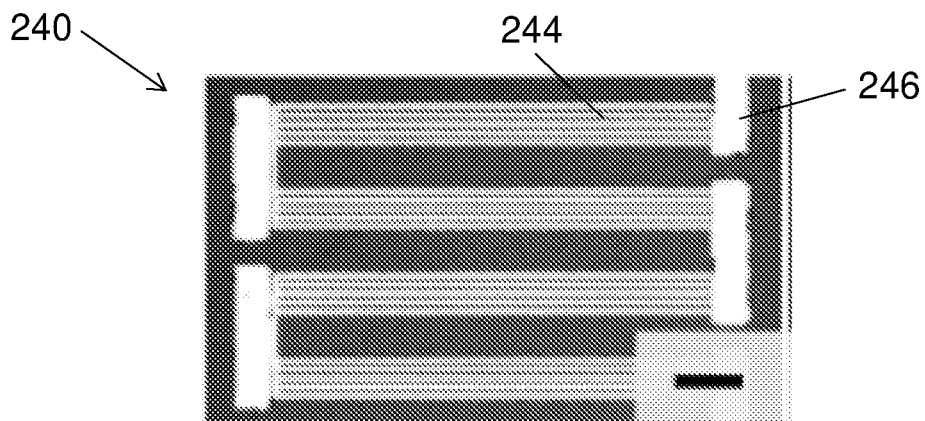


FIG. 3B

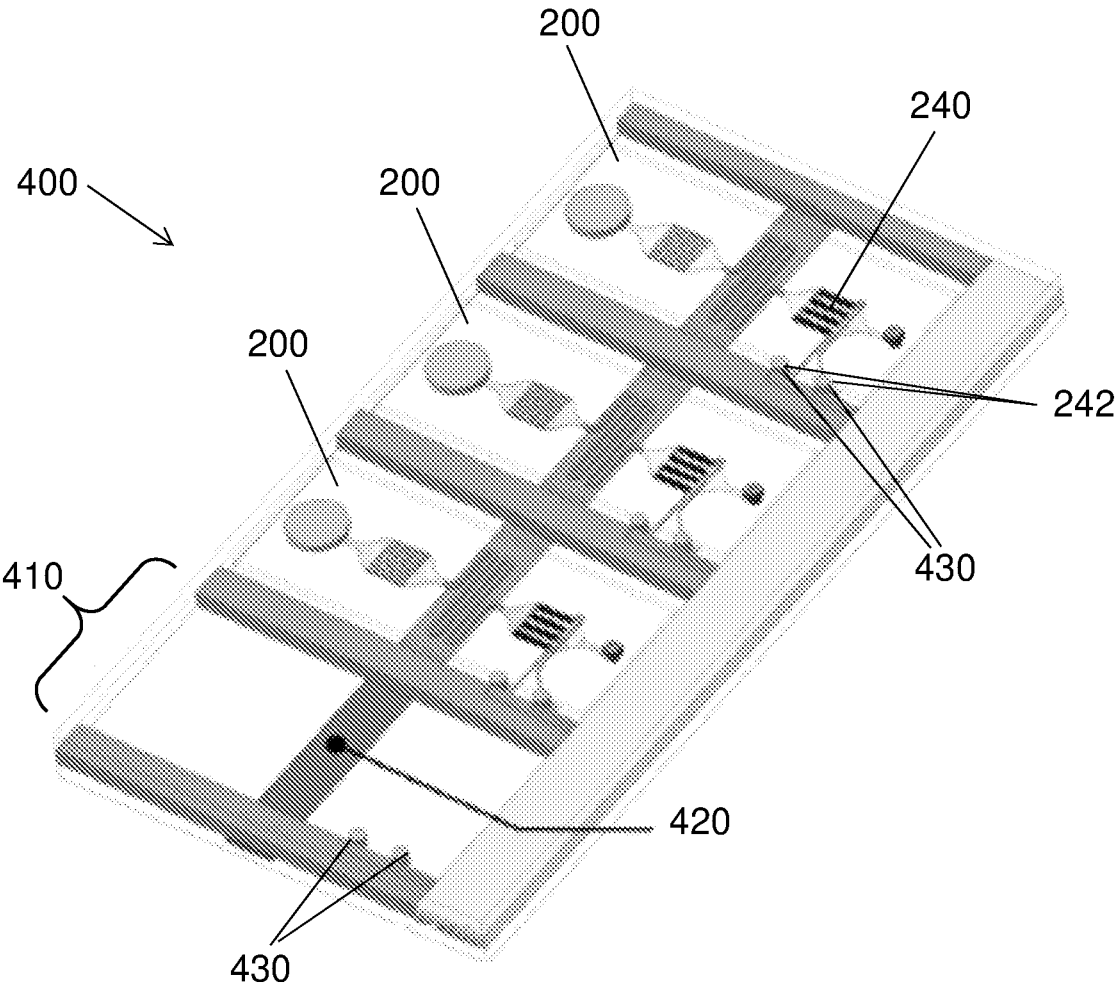


FIG.4

240 

Ta 3nm	502
FeNi 2nm	504
CoFe 1.5nm	506
Cu 2.3nm	508
CoFe 2nm	510
Ru 0.8nm	512
CoFe 2 nm	514
IrMn 8nm	516
FeNi 2nm	518
Ta 5nm	520

FIG.5

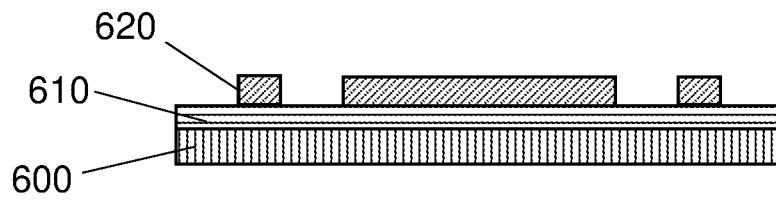


FIG. 6A

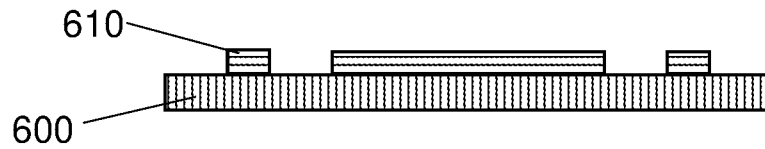


FIG. 6B

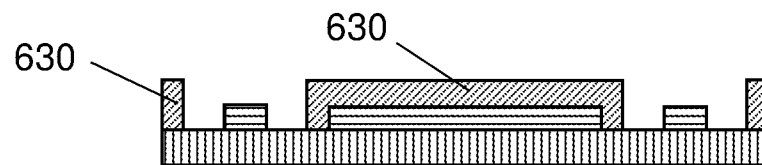


FIG. 6C

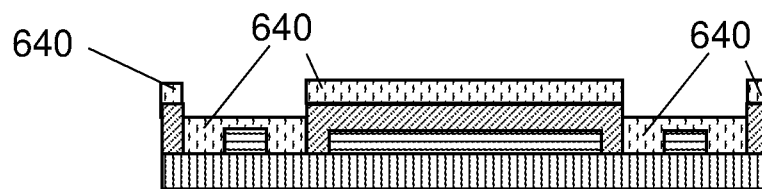


FIG. 6D



FIG. 6E

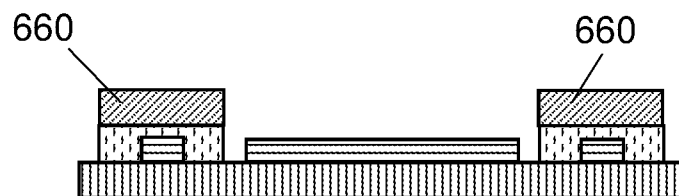


FIG. 6F

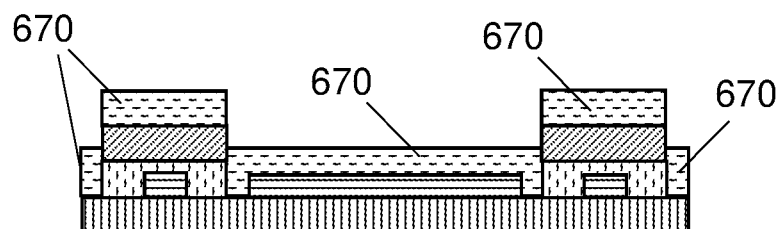


FIG. 6G

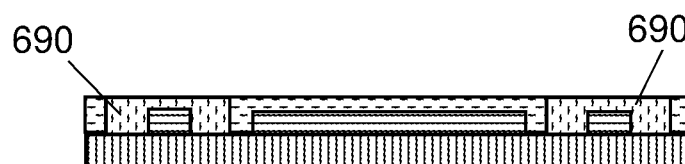


FIG. 6H

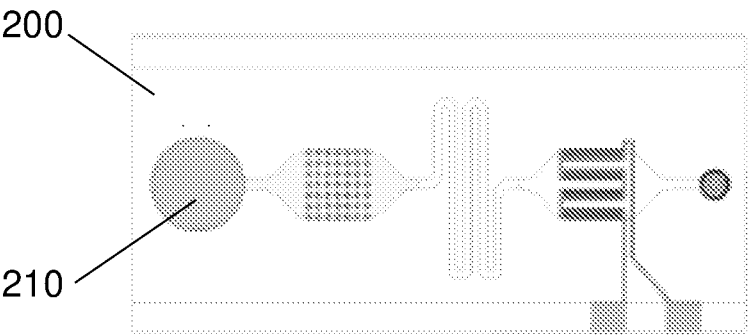


FIG. 7A

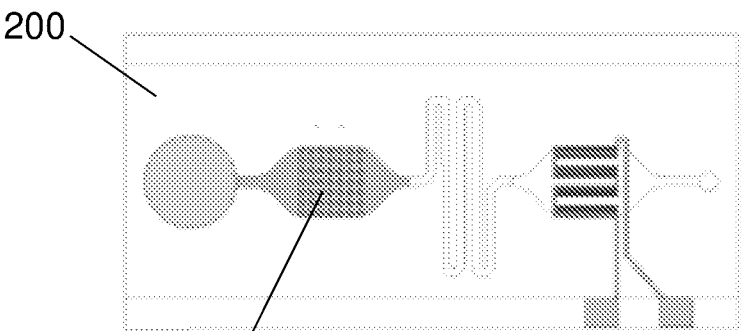


FIG. 7B

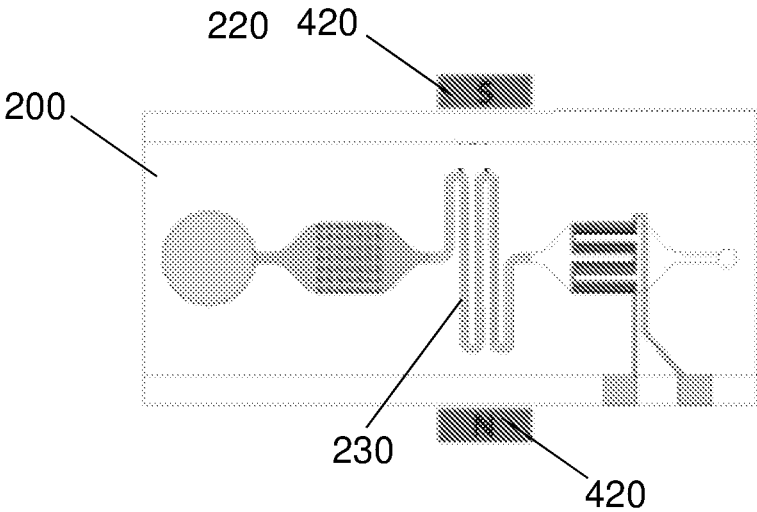


FIG. 7C

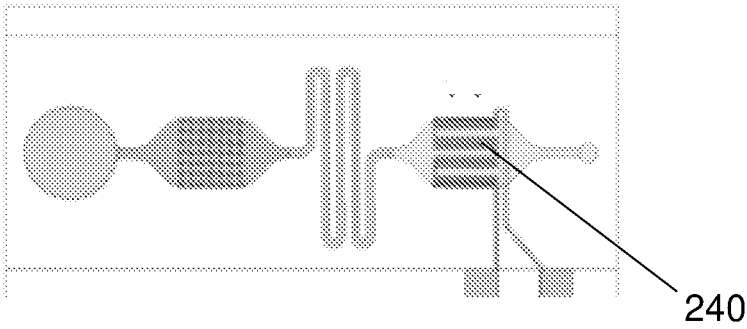


FIG. 7D

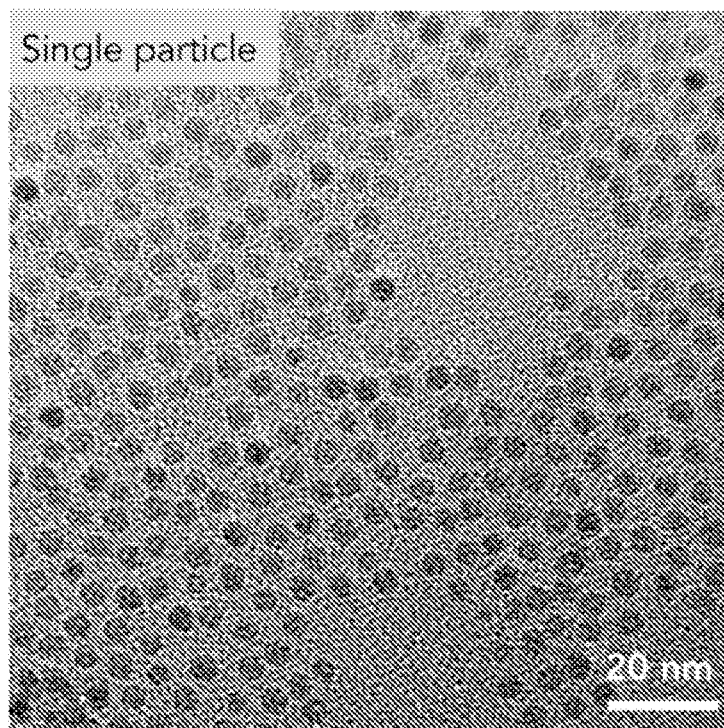


FIG.8A

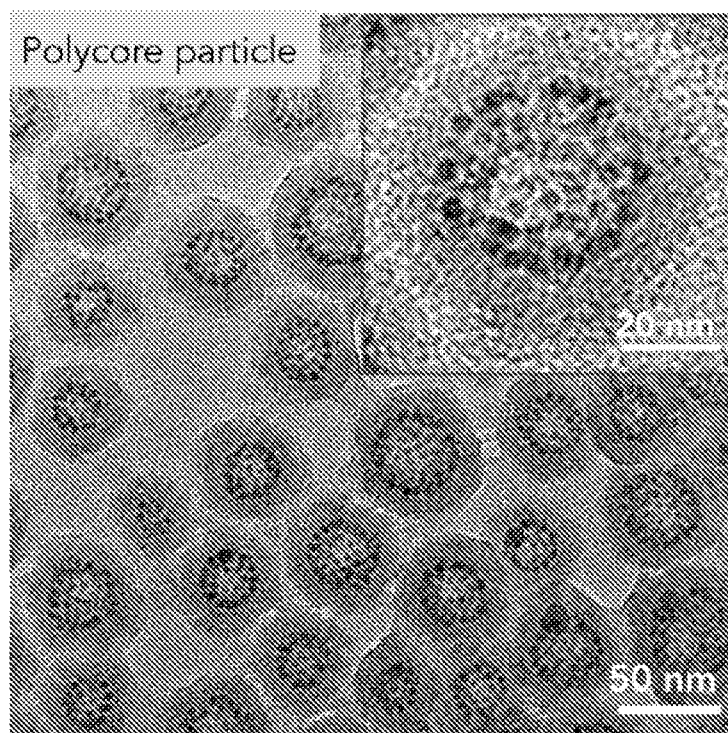


FIG.8B

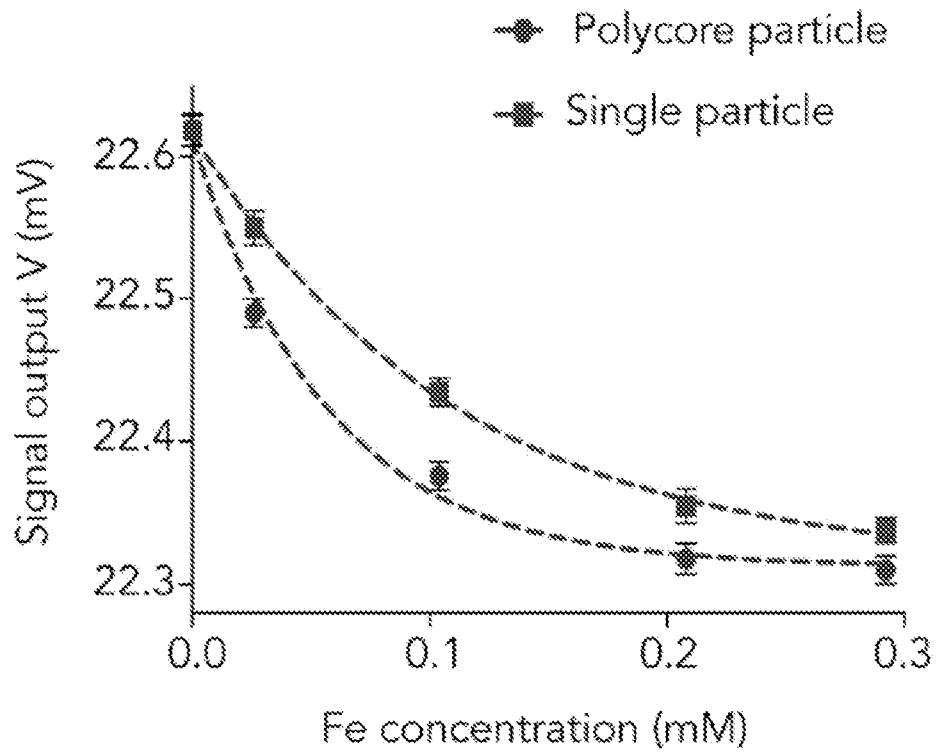


FIG.9A

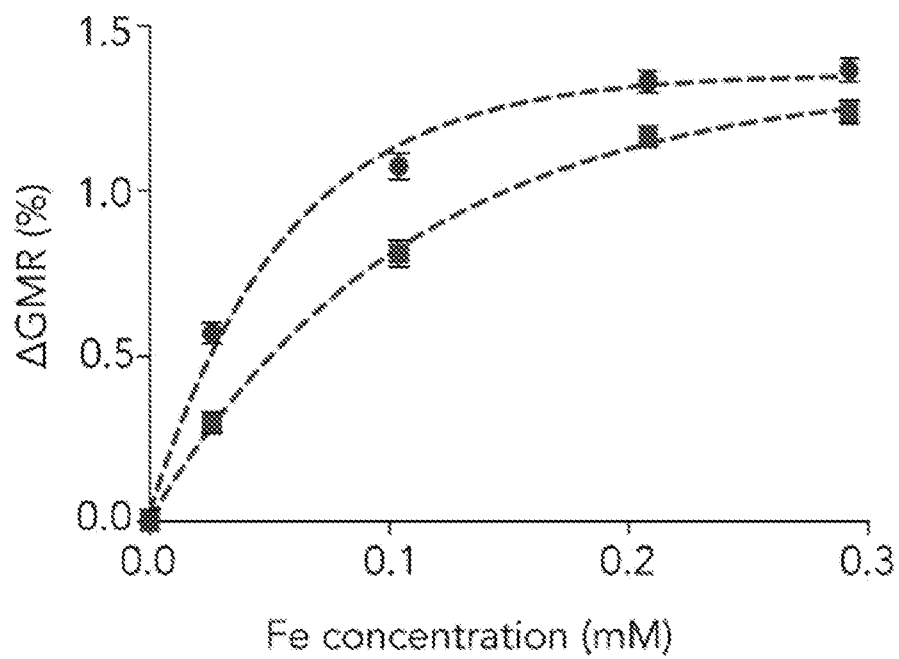


FIG.9B

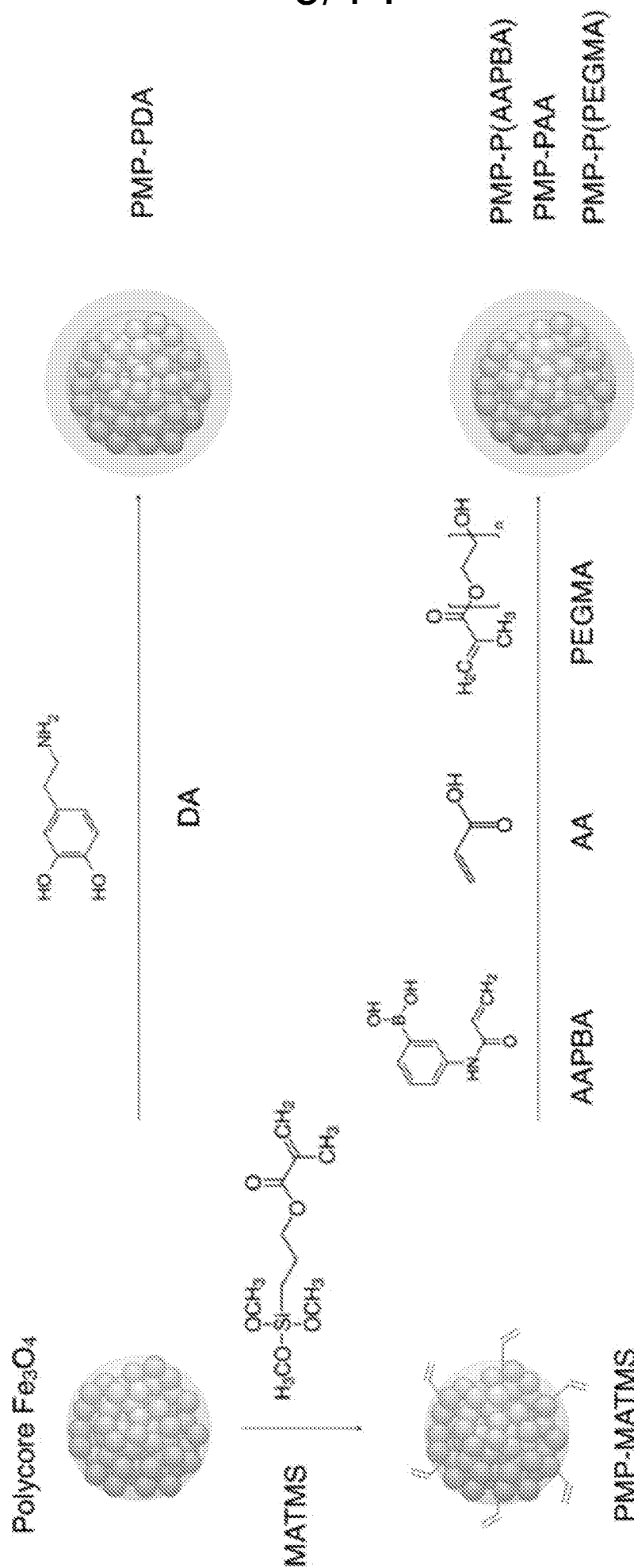


FIG. 9

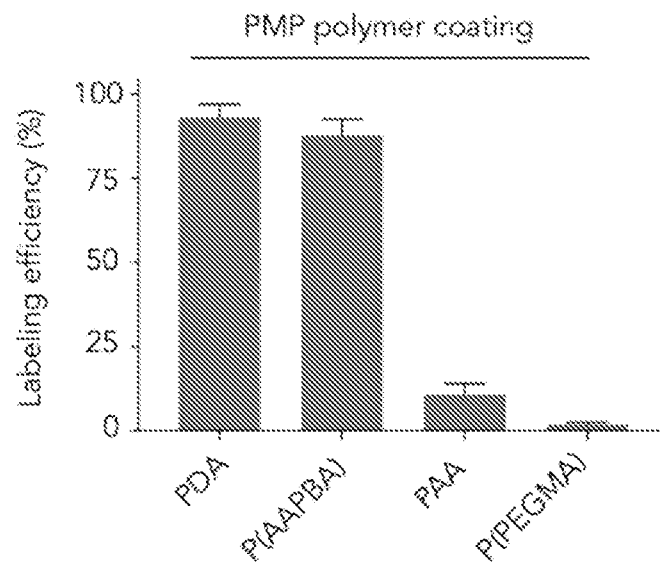


FIG.10A

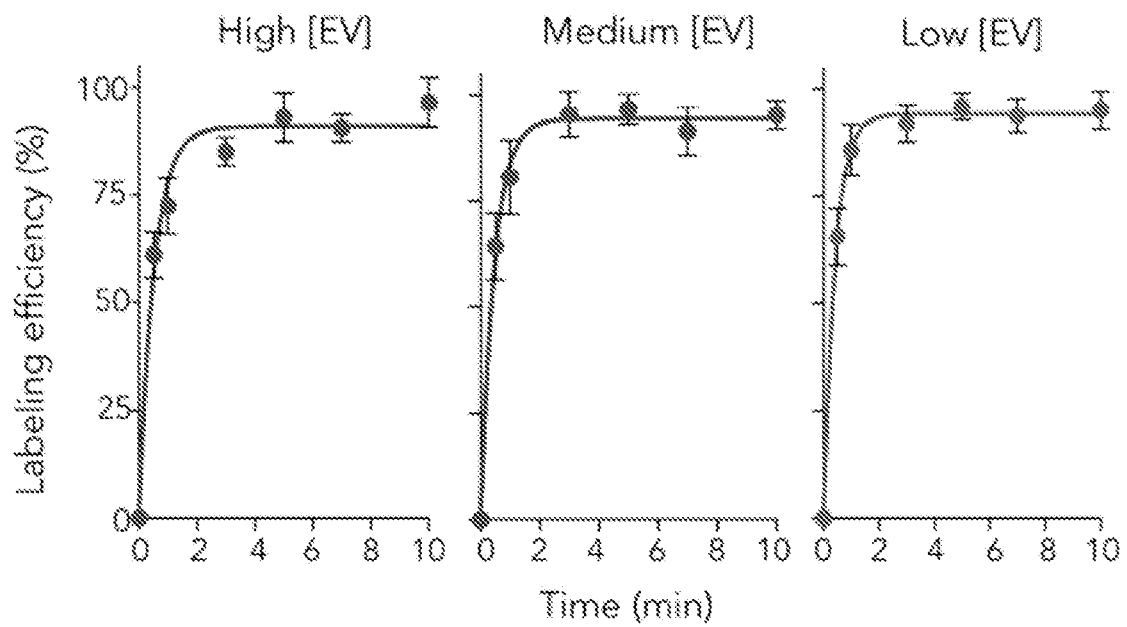


FIG.10B

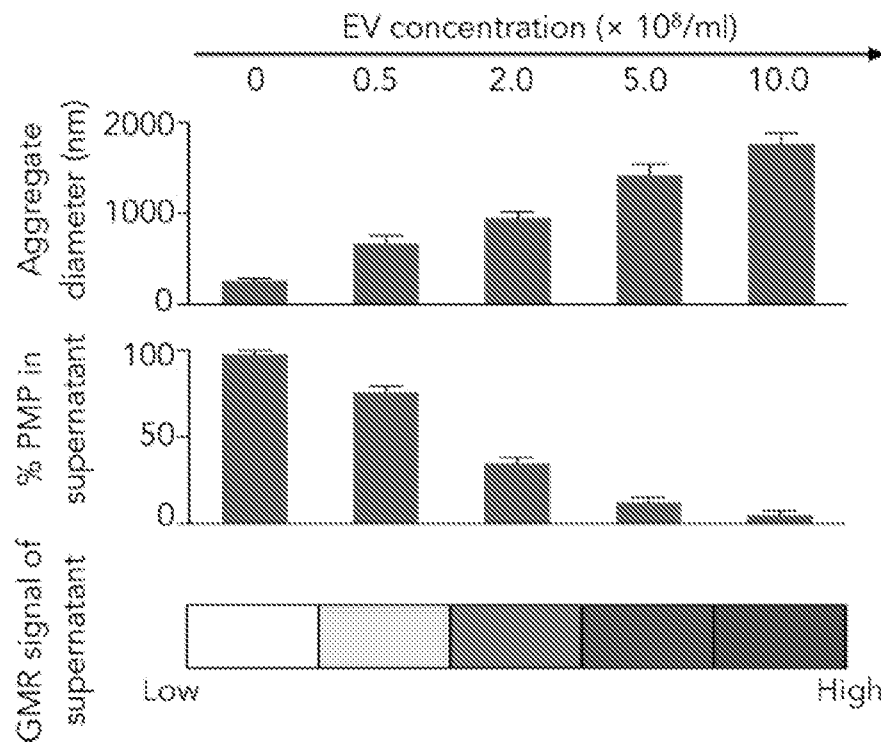
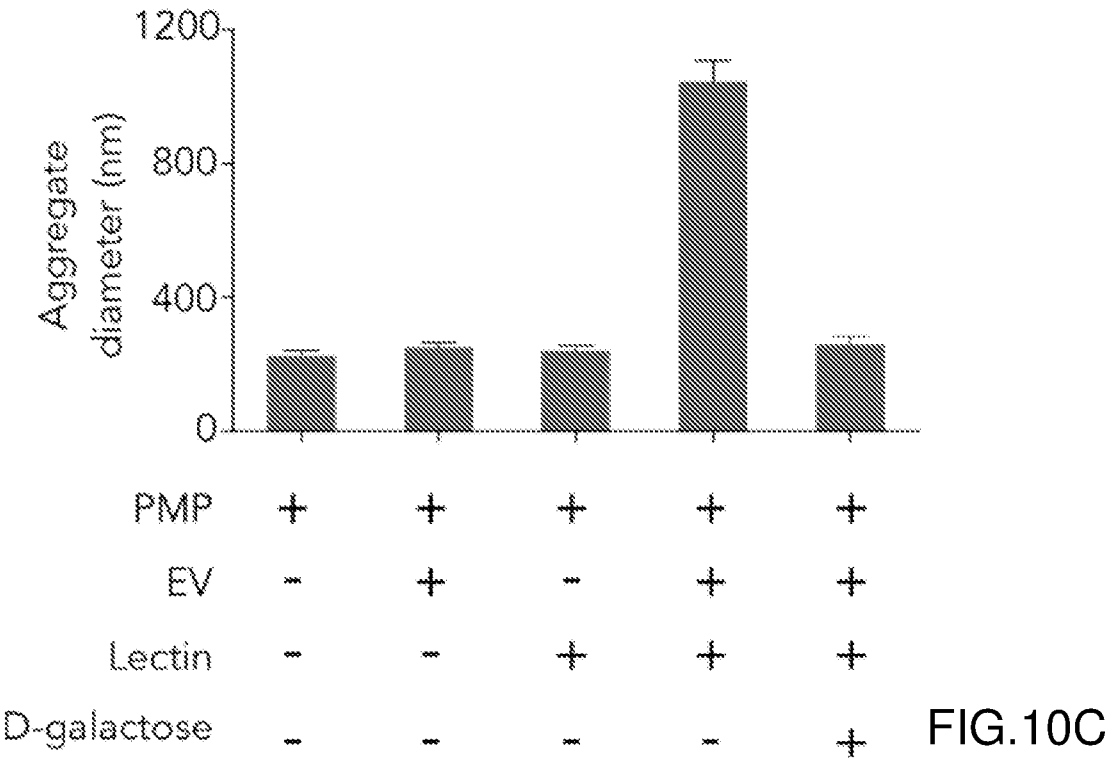


FIG.10D

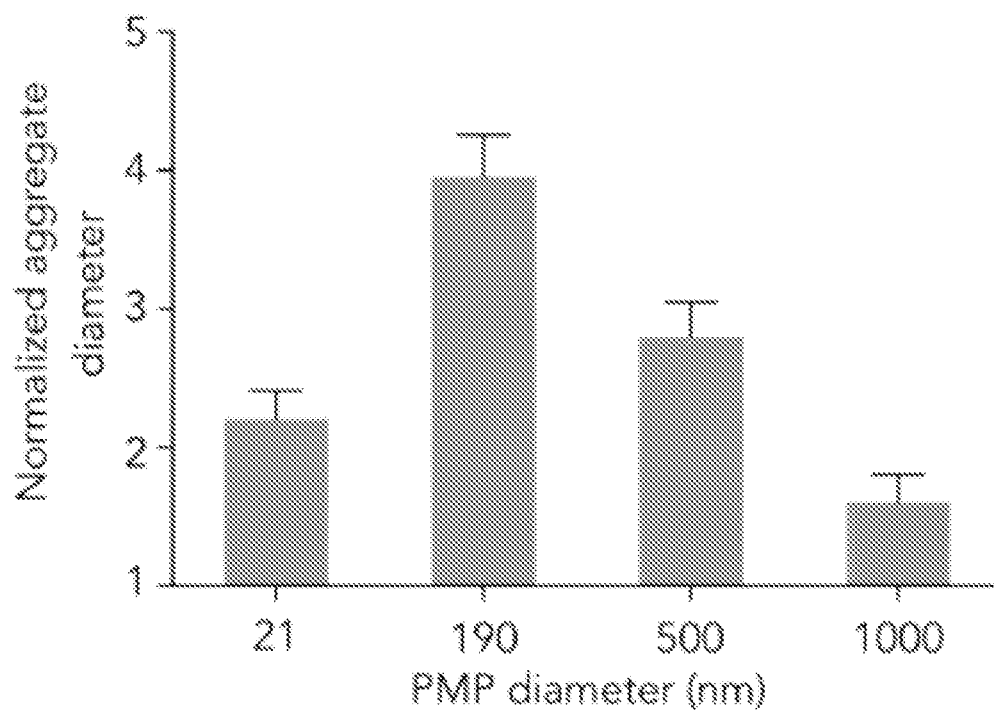


FIG.11

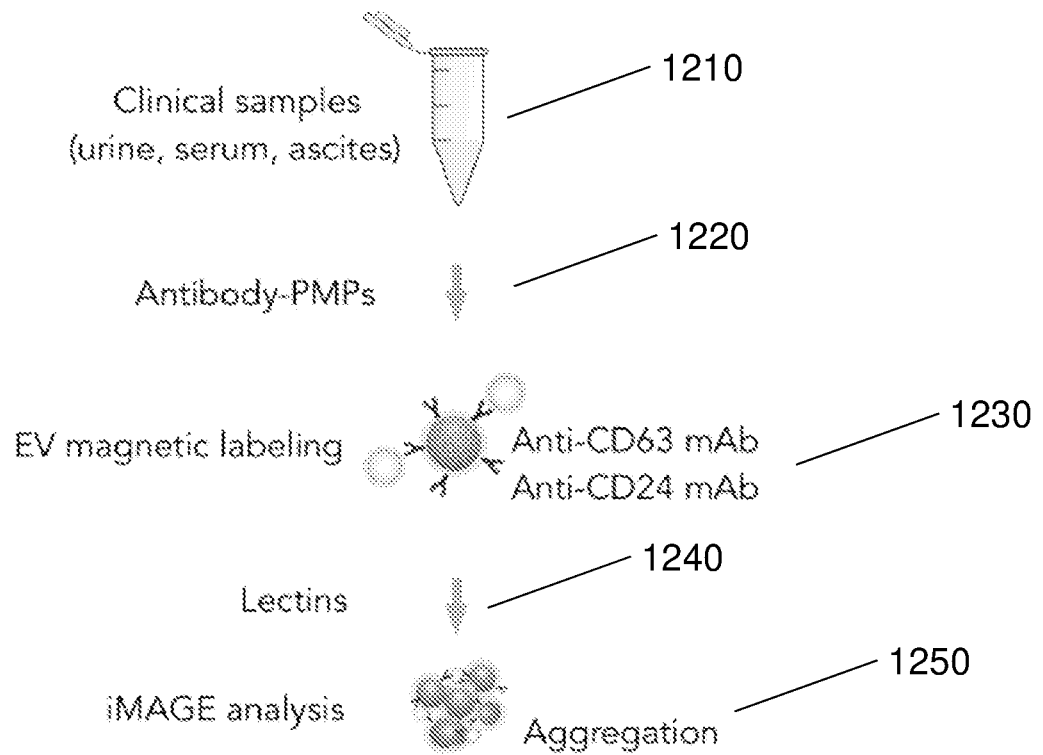


FIG.12A

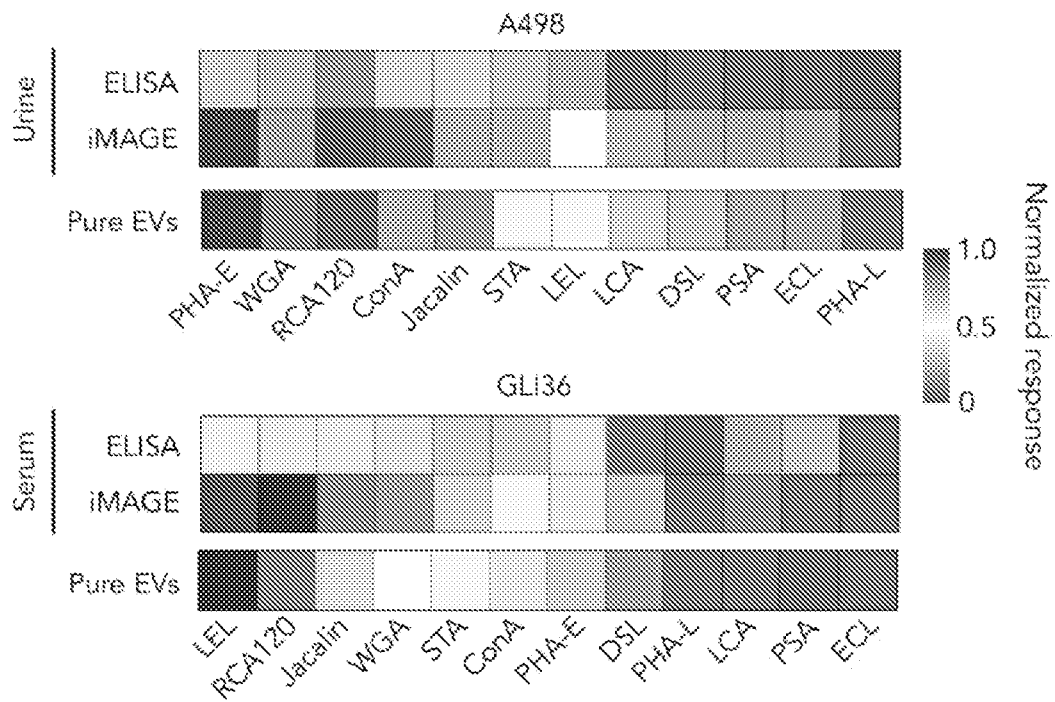


FIG.12B

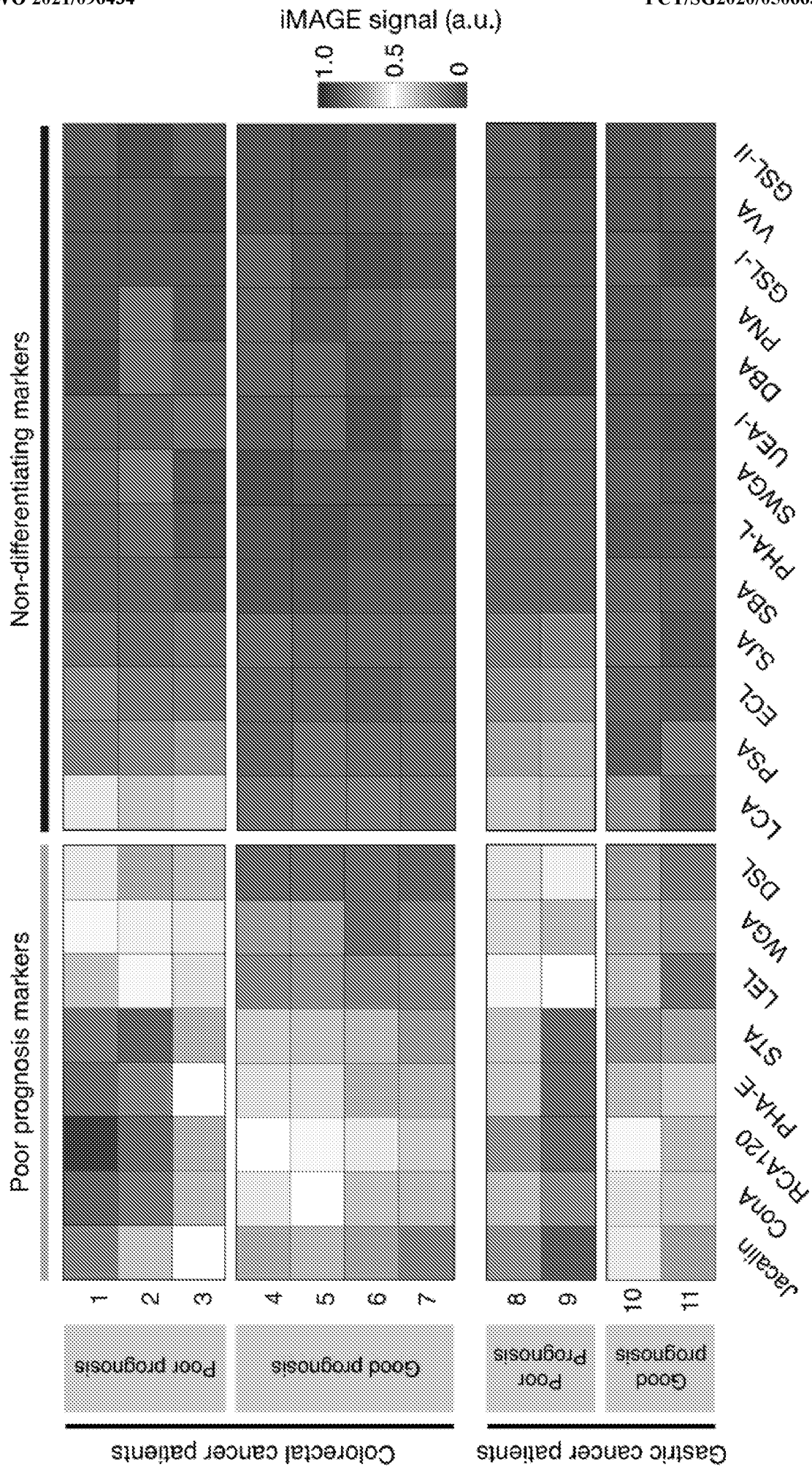


FIG.12C