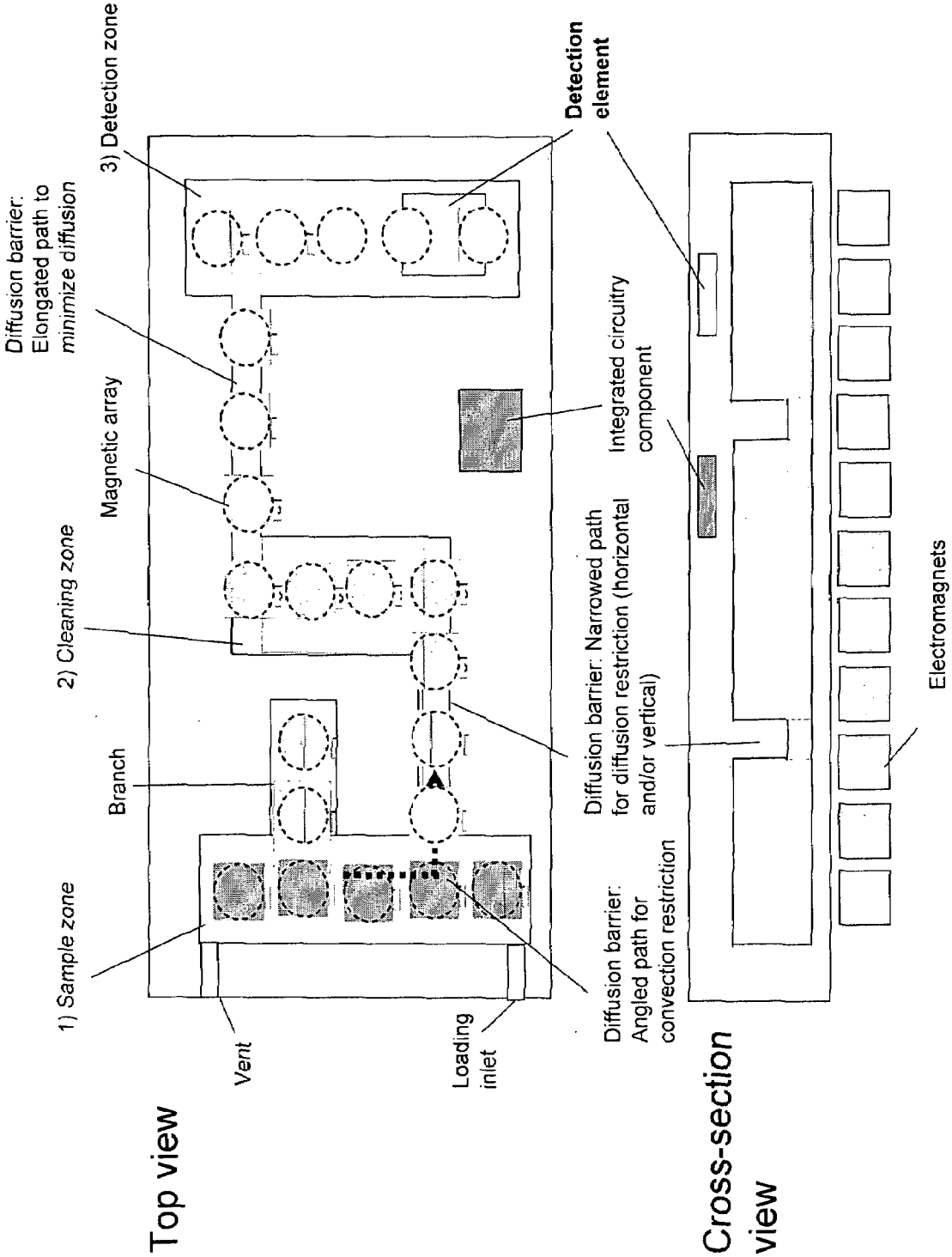
FIG. 4


3) Detection zone
Diffusion barrier: Elongated path to minimize diffusion
Magnetic array
2) Cleaning zone
Branch
1) Sample zone
Vent
Loading inlet
Top view
Detection element
Integrated circuitry component
Diffusion barrier: Narrowed path for diffusion restriction (horizontal and/or vertical)
Diffusion barrier: Angled path for convection restriction
Cross-section view
Electromagnets