

ABSTRACT

"OPTIMIZATION OF THE SOURCE FIRING PATTERN FOR X-RAY SCANNING SYSTEMS"

The present application discloses a computed tomography system having non-rotating X-ray sources that are programmed to optimize the source firing pattern. In one embodiment, the CT system is a fast cone-beam CT scanner which uses a fixed ring of multiple sources and fixed rings of detectors in an offset geometry. It should be appreciated that the source firing pattern is effectuated by a controller, which implements methods to determine a source firing pattern that are adapted to geometries where the X-ray sources and detector geometry are offset.

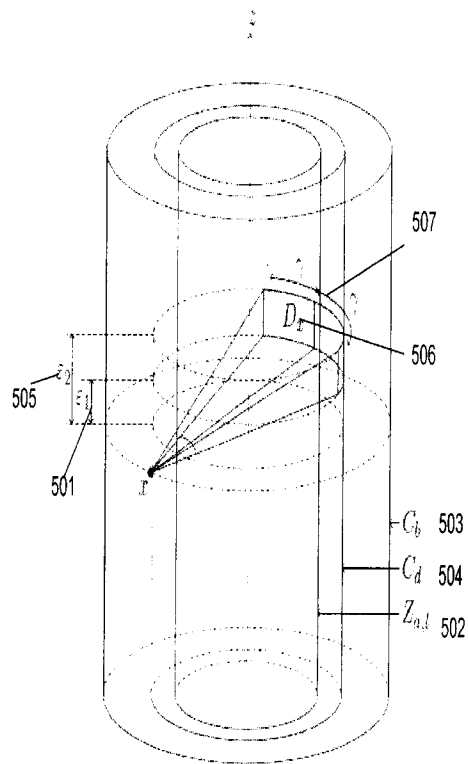


Figure 5

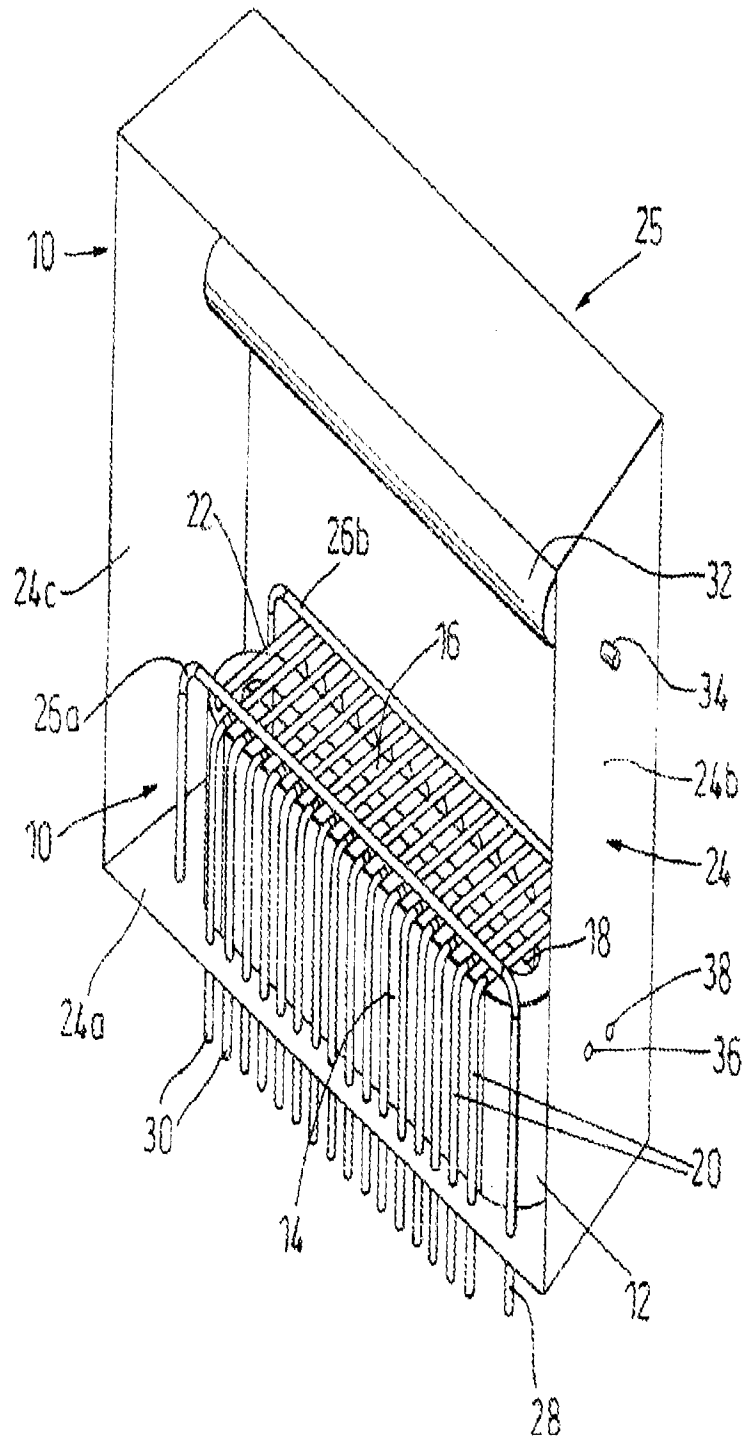


Figure 1

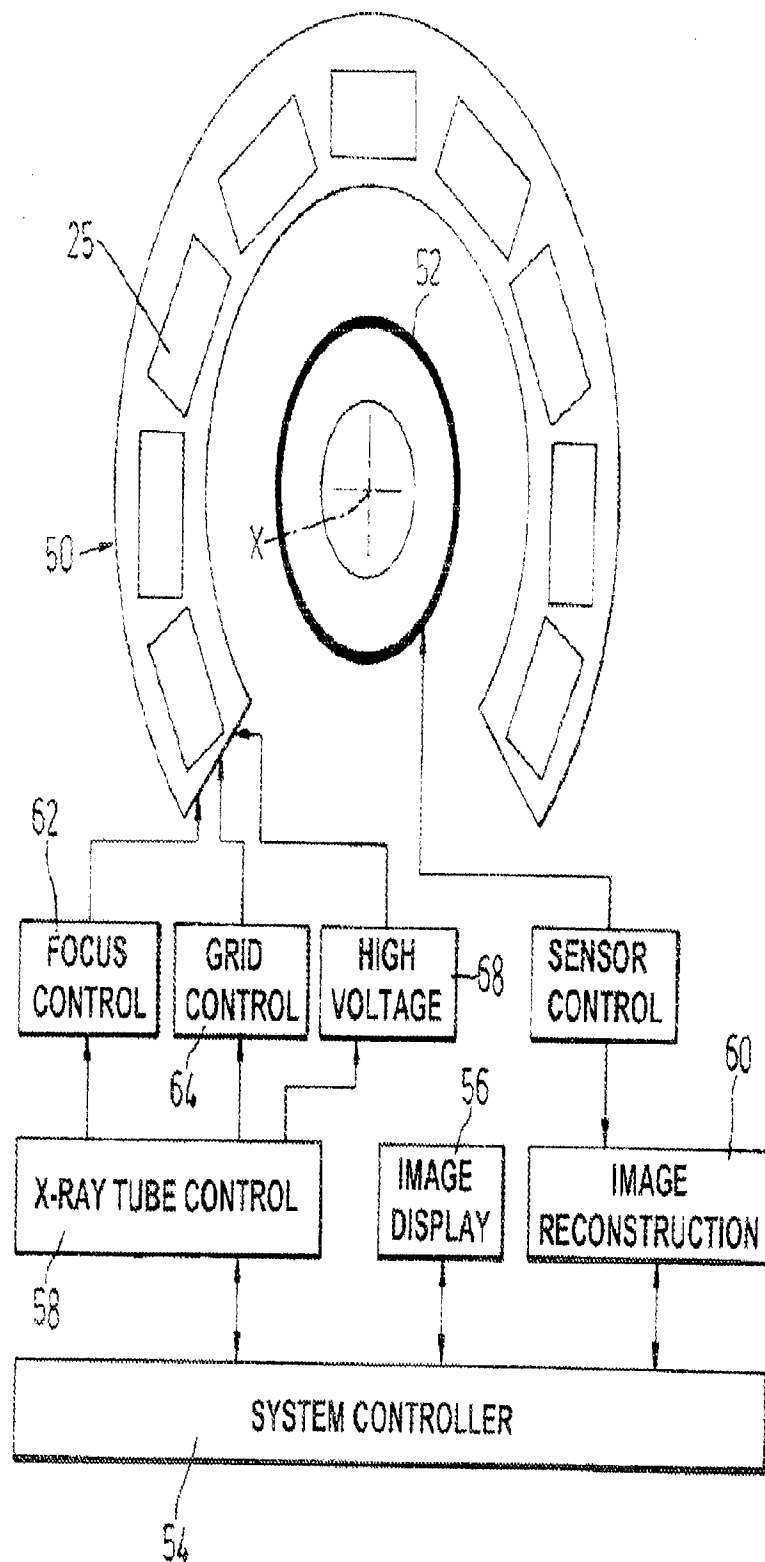


Figure 2

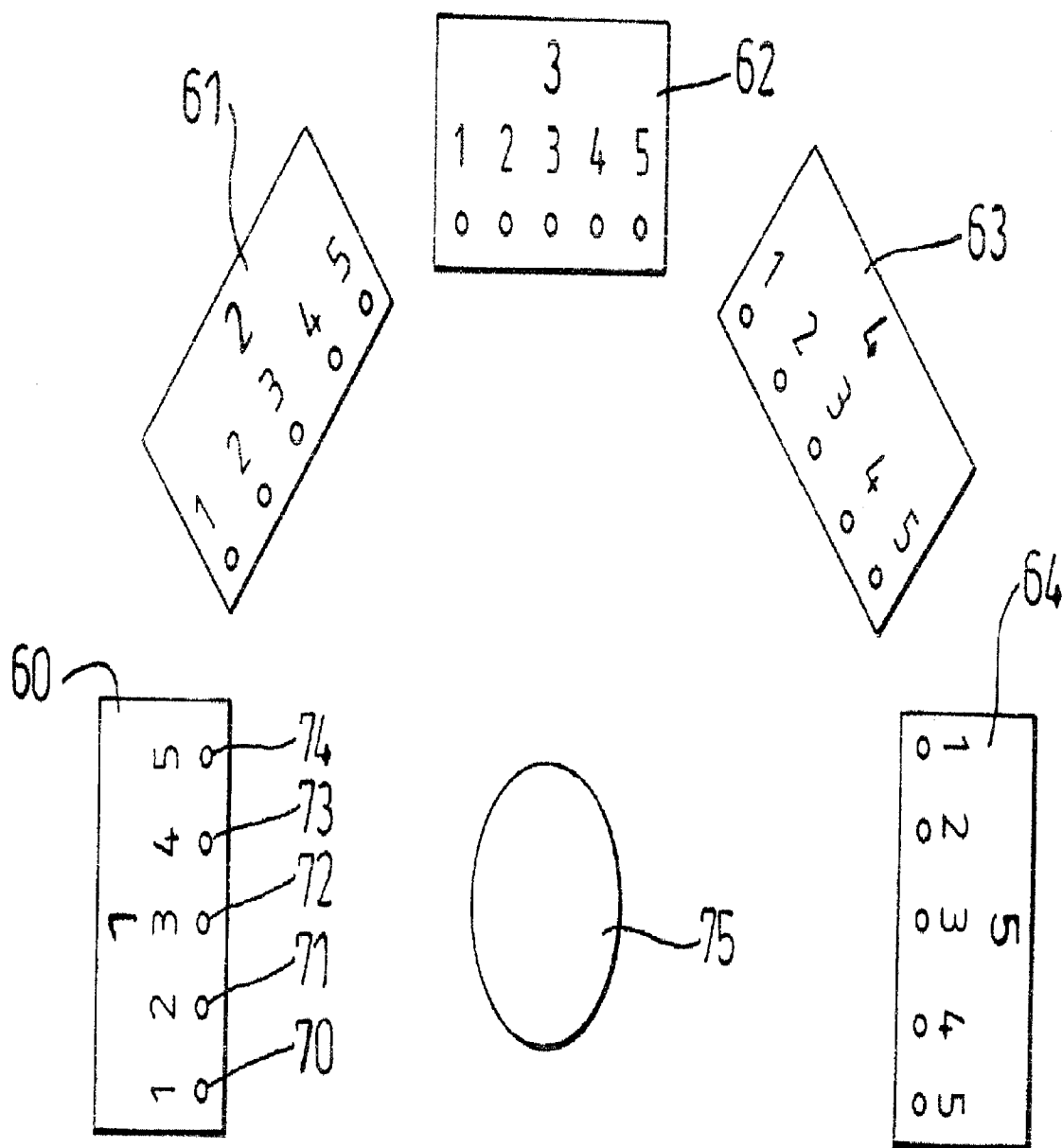


Figure 3

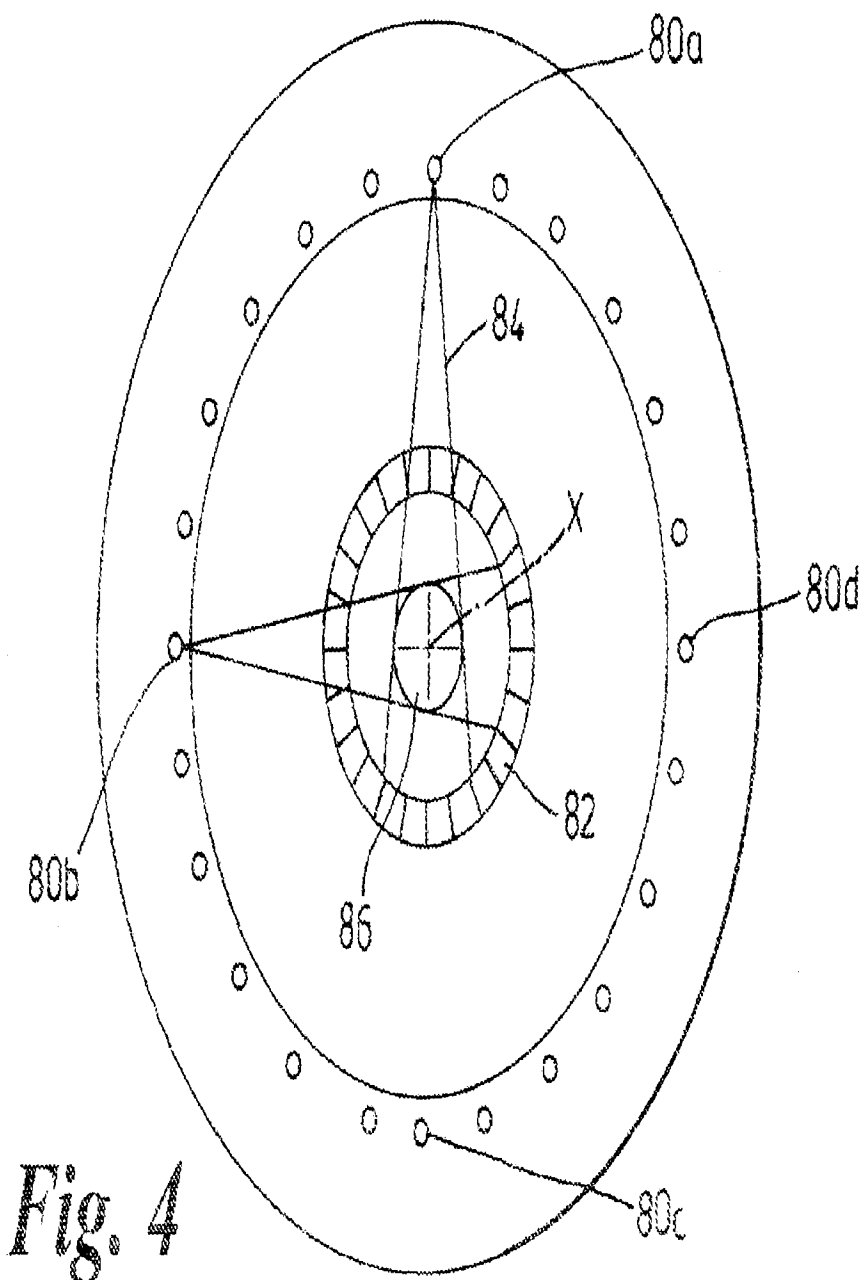


Figure 4



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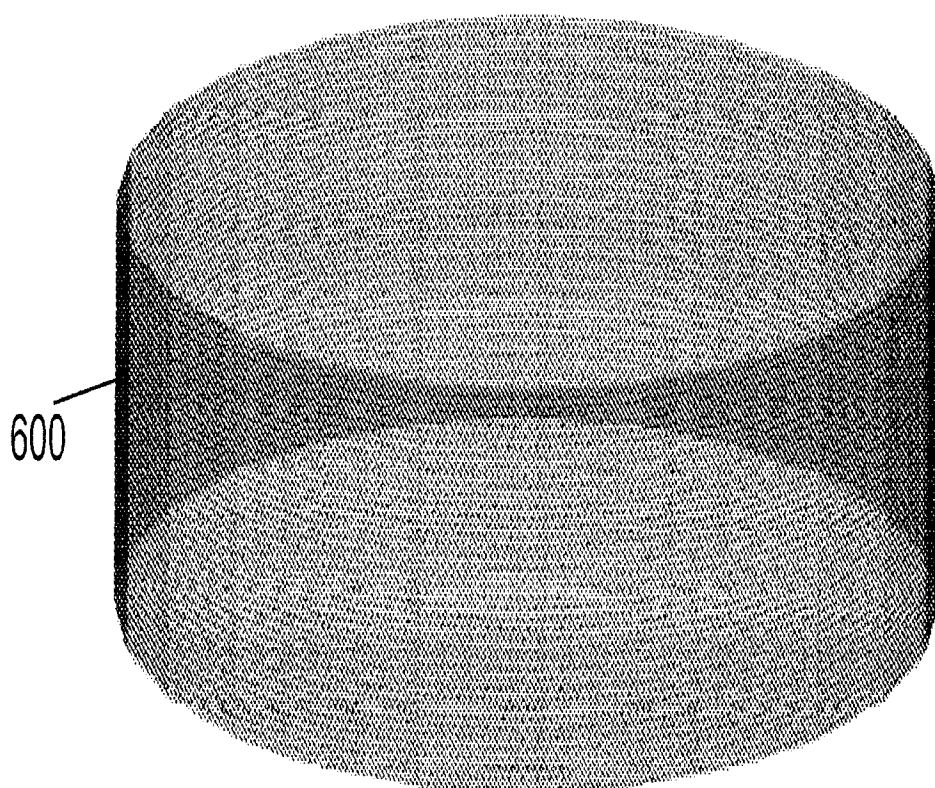
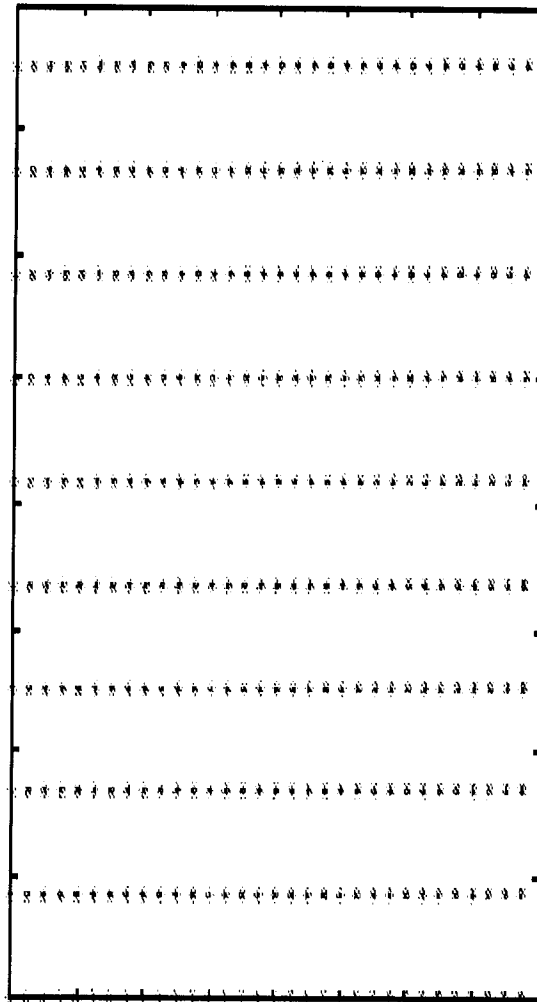


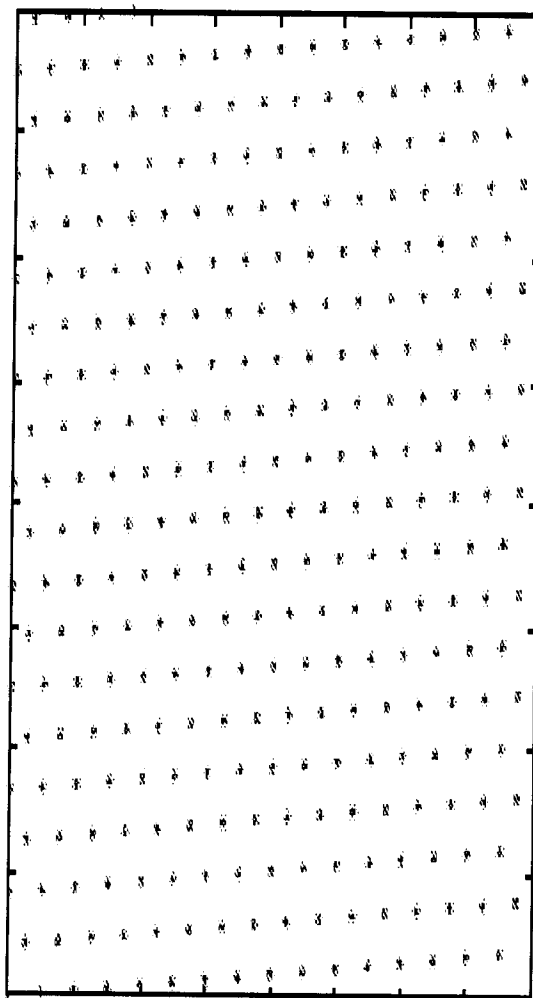
Figure 6

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(a) Sequential

Figure 7(a)



k-35

Figure 7(b)

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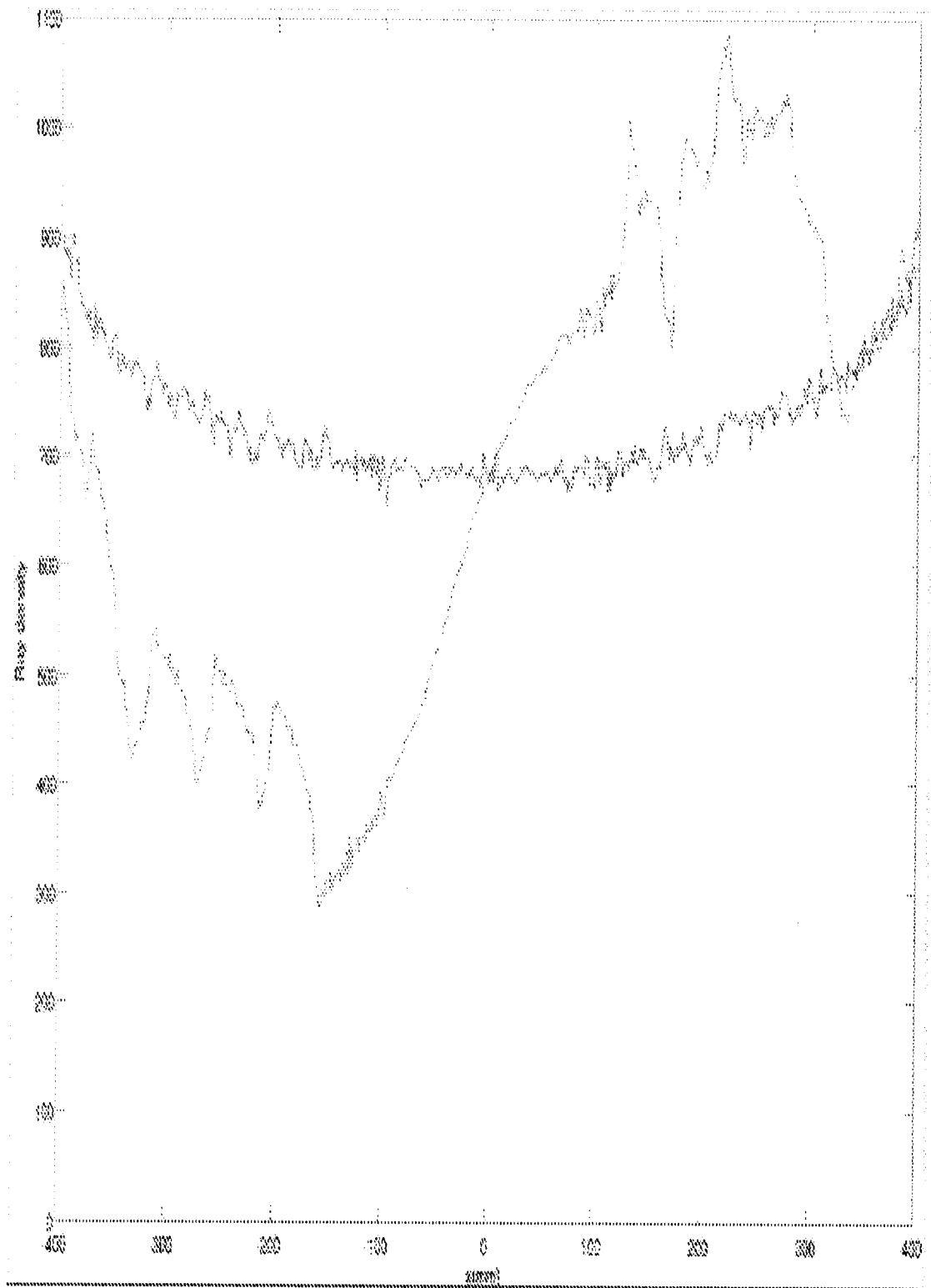


Figure 8

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