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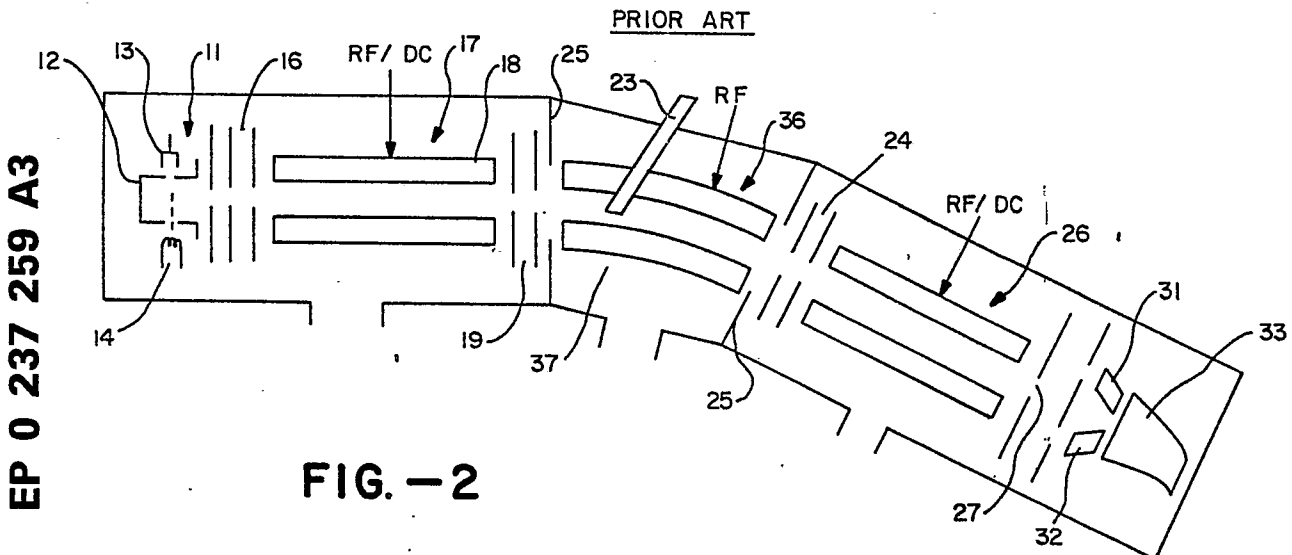
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(54) **Mass spectrometer.**

(57) A mass spectrometer includes an ion source (11) for projecting ions along a predetermined path, a detector (31, 32, 33) offset from said path, a quadrupole ion filter or analyzer (26) disposed adjacent said detector (31, 32, 33) to provide its output to the detector, and quadrupole means (36) for directing ions away from said path into said ion filter and analyzer (26). Such a spectrometer produces relatively low noise levels.





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
X	US-A-3 473 020 (W.M. BRUBAKER) * Figures 1,2; abstract; column 1, lines 50-72; claims 1,5 * ---	1,3,4	H 01 J 49/42
A	US-A-3 410 997 (W.M. BRUBAKER) * Figures 1,3,4 * ---	2	
A,D	US-A-4 234 791 (C.G. ENKE et al.) * Figure 2 * ---	2,7	
A	GB-A-2 129 607 (FINNIGAN) * Figure 1 * ---	2,7	
A	US-A-3 487 207 (R.A. LANGLEY) * Figures 1-4; column 1, lines 24-28; column 2, lines 42-51 * ---	5	
A	JOURNAL OF APPLIED PHYSICS, vol. 40, no. 8, July 1969, pages 3127-3134; D.A. CHURCH: "Storage-ring ion trap derived from the linear quadrupole radio-frequency mass filter" * Figure 5; page 3127, right-hand column, last paragraph; page 3133, right-hand column, last paragraph * -----	6	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			H 01 J G 21 K
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 28-11-1988	Examiner FRITZ S.C.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			