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(71) Applicant: **REDSENSE MEDICAL AB** [SE/SE]; Gyllenhammars väg 26, S-30292 Halmstad (SE).

(72) Inventors: **BYHMER, Patrik**; Gyllenhammars väg 26, S-30292 Halmstad (SE). **STRÖMSTEN, Patrik**; Trädgårdsvägen 3A, S-43535 Mölnlycke (SE).

(74) Agent: **ASKETORP, Göran**; Råbygatan 14B, s-22361 Lund (SE).

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(54) Title: DEVICE FOR MEASURING A PROPERTY OF A MEASUREMENT OBJECT BY LUMINESCENCE

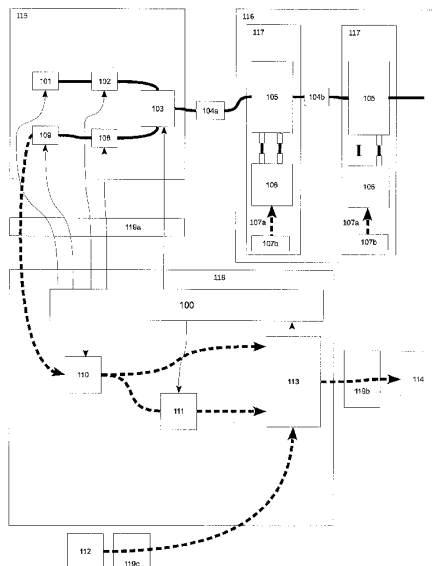


Figure 1

(57) Abstract: A device for monitoring a measurement object (107b), comprising: an active unit (115) having a light source (101) emitting light with a wavelength spectrum and an optical detector (109). An optical link (104a, 104b) passes the emitted light to a at least one passive unit (117). Each passive unit comprises a sensor (106) and a selector (105) for diverting the emitted light to the sensor. The sensor comprises a luminescent material (332, 342, 905, 1002, 1107, 1109) being directly or indirectly affected by the emitted light diverted by the selector (105). The sensor (106) is sensitive to an external influence (107a, 107a', 107a'') by the measurement object (107b) for producing a modulated signal, which is passed to said detector (109) via the optical link (104a). The luminescent material may be a fluorescent material, which is directly irradiated by the emitted light from the light source.

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