# Tinjauan Pustaka Sistematis Mengenai Metode Pengambilan Sampel Nanopartikel pada Breathing Zone Pekerja Tahun 2000-2021 = Systematic Literature Review Regarding Nanoparticle Sampling Methods in Workers' Breathing Zones 2000-2021

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Abstrak

Pengambilan sampel nanopartikel pada breathing zone pekerja merupakan salah satu upaya untuk menilai risiko pajanan nanopartikel yang diterima oleh tenaga kerja atas aktivitas yang ada di lingkungan kerja. Penentuan metode atau instrumen yang akan digunakan diperngaruhi oleh waktu / durasi; kemudahan penggunaan dan ketersediaan; ukuran nanopartikel yang dikehendaki; metode analisis lanjutan; jenis nanopartikel yang diuji; dan upaya eliminasi “background noise”. Setelah kajian pustaka sistematik dilakukan, maka dirumuskan metode personal sampling yang dapat digunakan, yaitu: Direct reading: Condensation particle counter (CPC); Optical Particle Counter (OPC) dan Indirect reading: Mini-DiSC; MOUDI; Nanobadge; Nanoparticle Respiratory Deposition (NRD); NanoTracer; Partector; dan Thermal precipitator sampler (TPS).

.....Sampling of nanoparticles in the worker's breathing zone is one of the efforts to assess the risk of nanoparticle exposure received by the workforce for activities in the work environment. Determination of the method or instrument to be used is influenced by time / duration; ease of use and availability; desired nanoparticle size; advanced analytical methods; the type of nanoparticles tested; and efforts to eliminate “background noise”. After a systematic literature review has been carried out, a personal sampling method that can be used is formulated, namely: Direct reading: Condensation particle counter (CPC); Optical Particle Counter (OPC) and Indirect reading: Mini-DiSC; MOUDI; Nanobadges; Nanoparticle Respiratory Deposition (NRD); NanoTracer; Partector; and Thermal precipitator sampler (TPS).