



Carwash wastewater characteristics - a systematic review study

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ABSTRACT

Due to rapid population growth and climate change all over the world, wastewater treatment and reuse, coupled with their understanding of their characteristics, have been extensively developed. This study was carried out with a systematic examination of the carwash wastewater properties. The systematic review was conducted using “PRISMA” checklist and “carwash wastewater”, “car wastewater”, “vehicle wastewater”, “carwash wastewater treatment” keywords. In general, 429 articles were chosen from these databases, which were included in this study after reviewing entry criteria only 56 of these articles. Most articles (56.36%) were related to Asia. Physicochemical, biological, heavy metals and resistant pollutants were investigated in this study. The results of the detailed analysis of articles published in the carwash wastewater domain have shown low organic and mineral pollutant composition. This suggests carwash wastewater as a reliable source of reuse. The most important features of carwash wastewater for human health are heavy metals, polycyclic aromatic hydrocarbons, polychlorinated biphenyls and surfactants, which should be considered. This study can be considered as a comprehensive research in the future of carwash wastewater.

Keywords: Carwash wastewater; Heavy metals; Wastewater treatment

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