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 Volume 13, Issue 3, March 2019, Pages 1130-1135

 Interlaboratory data fusion repository system (InDFuRS) for tocotrienols-based treatment (Article) [\(Open Access\)](#)

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Abstract

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Tocotrienols and tocopherols are part of the vitamin E family and have shown to produce lots of benefits especially in health supplement product. Both tocotrienols and tocopherols exist in an edible oil but varies in their ratio. It is also observed that percentage of tocopherols is higher than tocotrienols in most of our diet. Recent researches have found that tocotrienols seems to have more benefit to health especially for delaying neuro-degeneration and this has led researchers to investigate tocotrienols rich fraction (TRF) from palm kernel oil. To date, the tocotrienols extraction process is still work in progress. Hence, it is imperative that all information and results from the various laboratories experiments to be made available thus data analysis can be optimized for optimal tocotrienols production. Data acquisition from inter-laboratory experiments are valuable for collaborative researches. Efforts from multiple sources need to be combined to make it accessible for data integration. The sources of fused data can be employed as secondary back up once the data is migrated to a central repository. Traditionally data has been residing in silos across organization. Such scenario posed as a major problem especially when there are insufficient human and computational resources to manage such data. In addition, longitudinal data collections always suffer from mismanagement of the data where the data are not labeled properly using mismatched data formatting resulting to poor data readability. Therefore, a repository to facilitate data fusion using a systematic cloud-based system is proposed to ensure the data are accessible with maintained data uniformity and format and yet the security of the data is ensured as well as cost effective and fault tolerant. It is envisaged a better solution can be identified to minimize repetition of experiments and looking towards at advancement of extraction processes. © 2019 Institute of Advanced Engineering and Science.

SciVal Topic Prominence ⓘ

Topic: Tocotrienols | Vitamin E | fraction TRF

Prominence percentile: 90.285 ⓘ

Author keywords

[Big data analytics](#)
[Data fusion](#)
[Repository](#)
[Structured and semi-structured data](#)

Funding details

Funding sponsor	Funding number	Acronym
International Islamic University Malaysia		IIUM
Ministry of Higher Education, Malaysia		MOHE

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The authors would like to thank Universiti Teknologi MARA (UiTM), International Islamic University Malaysia (IIUM) and Ministry of Higher Education Malaysia (MOHE) for providing financial support through the MITRA grant (600-IRMI/PERDANA 5/3/MITRA (007/2018)-3) to conduct the work published in this paper.

ISSN: 25024752**Source Type:** Journal**Original language:** English**DOI:** 10.11591/ijeecs.v13.i3.pp1130-1135**Document Type:** Article**Publisher:** Institute of Advanced Engineering and Science

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