

STAM and STAM-M : Open Data and Open Science with Open Access Journal from Japan

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Materials science and technology has been rapidly growing, especially, since the emergence of data-driven approach, so called, materials informatics (MI) and as more databases that include variety of materials property emerged, some of which allowed researchers to freely reuse the data to obtain further dataset, the idea of MI brought a new paradigm in designing new materials science. Just like Bioinformatics has won its standing point in the sub discipline in life sciences, use of big data has led materials science to find its new discipline. However to this moment, there has been no appropriate journal for submitting articles from this emerging field. One reason being it as the field is still in its early days, and secondly this field is an interdisciplinary one between materials science, engineering and informatics which prevented new journals to be launched in the old disciplinary hierarchy. On this account, NIMS proposes to launch a brand new journal solely dedicated in advancement of MI in the purpose of systematizing this new scientific knowledge.

NIMS has been publishing Science and Technology of Advanced Materials (STAM) since 2000. It has introduced a new article category on MI in 2016 and the number of submissions on MI has been increasing since then. However, since STAM's aims and scope focuses on broad term of materials science and not specifically on informatics (methodology, database, instrumentation, and programming), STAM has been struggling to receive more papers on MI even though the Editors are aware that there are many unpublished good methodology and datasets stored in each laboratory of materials scientists. The new journal will be a platform to provide opportunity for these unsung papers to be read and to be reused by third parties in hope to design the future courses of materials science.

Keywords: Science and technology of advanced materials (STAM), Science and technology of advanced materials: Methods (STAM-M)



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