

**M-STRONGLY SOLID MONOIDS OF  
GENERALIZED HYPERSUBSTITUTIONS  
OF TYPE  $\tau = (2)$**

Sivaree Sudsanit and Sorasak Leeratanavalee

**Abstract.** The purpose of this paper is to characterize  $M$ -strongly solid monoids of generalized hypersubstitutions of type  $\tau = (2)$  which is the extension of  $M$ -solid monoids of hypersubstitutions of the same type.

[Full text](#)

## References

- [1] K. Denecke and J. Koppitz, *All  $M$ -solid monoids of hypersubstitutions of type  $\tau = (2)$* , Semigroup Forum, **57** (1998), 430-434. [MR1640883](#). [Zbl 0922.20062](#).
- [2] J. Koppitz and K. Denecke,  *$M$ -Solid Varieties of Algebras*, Springer Science+Business Media, Inc., New York, 2006. [MR2199924](#)(2006m:08001). [Zbl 1094.08001](#).
- [3] S. Leeratanavalee and K. Denecke, *Generalized Hypersubstitutions and Strongly Solid Varieties*, General Algebra and Applications, Proc. of “59 th Workshop on General Algebra”, “15 th Conference for Young Algebraists Potsdam 2000”, Shaker Verlag(2000), 135-145.
- [4] W. Puninagool, *Monoids of generalized hypersubstitutions of type  $\tau = (n)$* , Ph.D. Thesis, Chiang Mai University, Chiang Mai 50200, Thailand, 2010.

---

2010 Mathematics Subject Classification: 08A02; 08A55.

Keywords:  $M$ -strongly solid variety;  $M$ -strongly solid monoids; Generalized hypersubstitution.

*This work was supported by the Graduate school, Chiang Mai University, Chiang Mai 50200, Thailand. S. Leeratanavalee (corresponding author) is partially supported by Faculty of Science, Chiang Mai University, Chiang Mai 50200, Thailand.*

---

\*\*\*\*\*

<http://www.utgjiu.ro/math/sma>

---

Sivaree Sudsanit  
Department of Mathematics,  
Faculty of Science,  
Chiang Mai University,  
Chiang Mai 50200, Thailand.  
e-mail: sivaree\_sudsanit@hotmail.com

Sorasak Leeratanavalee (corresponding author)  
Department of Mathematics,  
Faculty of Science,  
Chiang Mai University,  
Chiang Mai 50200, Thailand.  
e-mail: sorasak.l@cmu.ac.th