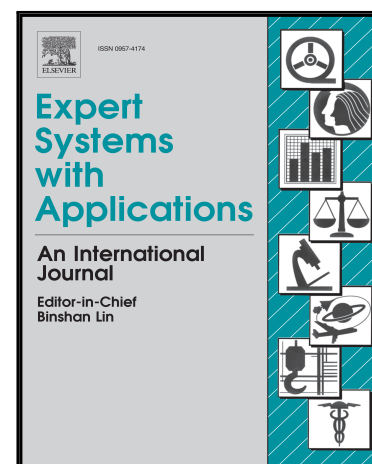


## Accepted Manuscript

Metabolic Pathway Synthesis Based on Predicting Compound Transformable Pairs by Using Neural Classifiers with Imbalanced Data Handling

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**Highlights**

- Neural networks for predicting transform-ability of *E.coli* metabolite pairs.
- Average and projected features were two proposed schemes for each metabolite pair.
- Handling imbalanced training data by balancing boundary data of different classes.
- Our outperforming results in terms of accuracy and recovering pathway.

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