

Abstract Submitted
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Study on the Mood Regulations and Antipsychotic Substances

MIN KYUNG SEONG, RICHARD KYUNG, Choice Research Group — The main causes of depression are known to be faulty mood regulation, genetic susceptibility, stressful events, and medical issues. In better understanding the diagnosis of depression, technological advancements, such as brain imaging technology, have played a significant role. With the help of technology, quantifiable measurements of neurotransmitters such as Serotonin, GABA, Acetylcholine, Dopamine, and Glutamate have become an essential site for observation of depression. Although there are no known cures of depression, computational biomedical simulation technology has been perceived as being a possible solution for depression and anxiety in recent years. In this paper, using the modern tools, antipsychotic substances such as Reserpine molecule and CRF complexes are analyzed as they are able to give the psychological problems. The use of alternative complexes might lead to a solution with less active energy and greater efficiency. Used programs are capable of building a virtual molecule with optimized geometry using GAFF (General Amber Force Field) and then UFF (Universal Force Field). The theoretical structure of each feasible compound is also studied by using the stability of each molecule to predict the efficiency of the molecule in assessing the thermodynamic stability.

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