Abstract

significant research topic in recent years. Codon is an important element in DNA sequence which is responsible for formation of protein in genes. 64 codons of genes are modeled using MOSFET from elementary level and characterized them based on purine and pyrimidine property. The model is realized in Spice domain and a new genetic code classification table is described based on simulated transient voltage and current responses of purine and pyrimidine bases. The effect of base position is investigated using frequency domain analysis of voltage and phase characteristics of codon electrical circuit.
Codon Characterization based on Electrical Response

References

- Tavel, 2007 Modeling and Simulation Design. AK Peters Ltd.


**Index Terms**

Computer Science  
Power Systems

**Keywords**

Codon  
Dna  
Nucleotides  
Electrical Model  
Mosfet.