

Obtaining a US patent:

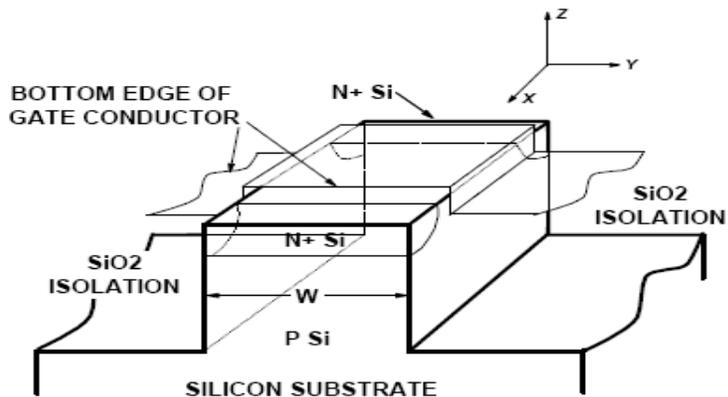
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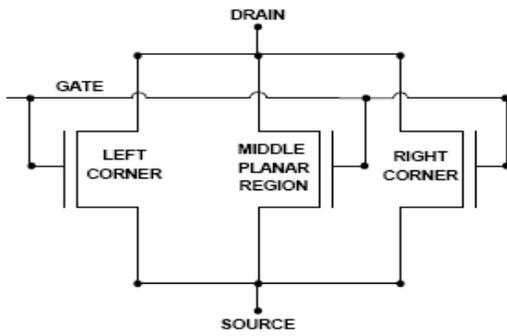
The ingredients that are necessary and sufficient for granting a US patent are the intersection of new, useful, and non-obvious elements of enablement. This intersection is used by experts skilled in the art to examine the patent specification and its claims. As an inventor you must describe why this application is not anticipated by the prior art. The analysis of prior art when viewed as a unique element or in combination therein cannot read against the claims that arise as a result of the proposed invention.

This talk will analyze USPA 5,798,553 "Trench Isolated FET Devices, and the Method for their manufacture". The application describes a fundamental industry problem, and a proposed solution. A description of how this problem statement was introduced into the technical community through IEEE publication is also shown. Fundamental electrical engineering principles are used to both analyze and solve the problem. A semiconductor process solution using standard techniques is shown to satisfy the conditions of new, useful, and non-obvious, and leads to the claims this patent now protects.



CHANNEL CURRENT IS IN THE "x" DIRECTION

SIMPLE DC STEADY-STATE EQUIVALENT
CIRCUIT OF SHALLOW TRENCH BOUNDED
MOSFET:



William R. Tonti



Dr Tonti received the B.S.E.E. with honor (1978) from Northeastern University, an MSEE(1982) and a PhDEE(1988) from the University of Vermont. He holds an MBA(1983) from St. Michael's College. Currently Dr. Tonti is the Director of Future Directions at the IEEE. Retired from IBM he held the positions of IBM senior technical staff member , senior manager, and master inventor. . Dr. Tonti has authored numerous contributed, keynote , and invited papers, and holds over 250 U.S. patents. Dr. Tonti is a member of tau beta pi, eta kappa nu, a fellow of the IEEE, a former advisory board member of the IEEE Transactions on Device and Material Reliability, a recipient of the IEEE 3'rd millennium medal, the 2008 Reliability Engineer of year, and a former ABET engineering curriculum evaluator. He is a past IEEE Reliability Society President.