

## **Oxetane Compounds Containing Styrenic Functionality**

### **Abstract**

These compounds contain an oxetane functionality and a styrenic functionality. The oxetane functionality is homopolymerizable in reactions that undergo cationic or anionic ring opening, and the styrenic is polymerizable with compounds such as electron acceptor compounds. The dual functionality allows for dual cure processing. The compounds will have the structure in which  $R^1$  is a methyl or ethyl group;  $R^2$  and  $R^3$  are H or a methyl or ethyl group;  $R^4$  is a direct bond or a divalent hydrocarbon; X and Y are independently a direct bond or an ether, ester, amide, or carbamate group, provided both X and Y are not a direct bond; Q is a divalent hydrocarbon (which may contain heteroatoms of N, O, or S); and G is  $-OR^1$ ,  $-SR^1$ , or  $-N(R^2)(R^3)$ , in which  $R^1$ ,  $R^2$  and  $R^3$  are as described above.