dIbre\_dVq = b\*sin(Dq) - g\*cos(Dq)

dIbre\_dDq =Vq\*b\*cos(Dq) + Vq\*g\*sin(Dq)

dIbre\_dVp =gips\*cos(Dp) - bips\*sin(Dp)

dIbre\_dDp =- Vp\*bips\*cos(Dp) - Vp\*gips\*sin(Dp)

dIbim\_dVq =- b\*cos(Dq) - g\*sin(Dq)

dIbim\_dDq =Vq\*b\*sin(Dq) - Vq\*g\*cos(Dq)

dIbim\_dVp =bips\*cos(Dp) + gips\*sin(Dp)

dIbim\_dDp =Vp\*gips\*cos(Dp) - Vp\*bips\*sin(Dp)

dIere\_dVq =biqs\*sin(Dq) - giqs\*cos(Dq)

dIere\_dDq =Vq\*biqs\*cos(Dq) + Vq\*giqs\*sin(Dq)

dIere\_dVp =ge\*cos(Dp) - be\*sin(Dp)

dIere\_dDp =- Vp\*be\*cos(Dp) - Vp\*ge\*sin(Dp)

dIeim\_dVq =- biqs\*cos(Dq) - giqs\*sin(Dq)

dIeim\_dDq =Vq\*biqs\*sin(Dq) - Vq\*giqs\*cos(Dq)

dIeim\_dVp =be\*cos(Dp) + ge\*sin(Dp)

dIeim\_dDp =Vp\*ge\*cos(Dp) - Vp\*be\*sin(Dp)

dabsIb\_dIbre =-Ibre/(Ibim^2 + Ibre^2)^(1/2)

dabsIb\_dIbim =-Ibim/(Ibim^2 + Ibre^2)^(1/2)

dPb\_dVp =- Ibre\*cos(Dp) - Ibim\*sin(Dp)

dPb\_dDp =Ibre\*Vp\*sin(Dp) - Ibim\*Vp\*cos(Dp)

dPb\_dIbre =-Vp\*cos(Dp)

dPb\_dIbim =-Vp\*sin(Dp)

dQb\_dVp =Ibim\*cos(Dp) - Ibre\*sin(Dp)

dQb\_dDp =- Ibre\*Vp\*cos(Dp) - Ibim\*Vp\*sin(Dp)

dQb\_dIbre =-Vp\*sin(Dp)

dQb\_dIbim =Vp\*cos(Dp)

dPe\_dVq =- Iere\*cos(Dq) - Ieim\*sin(Dq)

dPe\_dDq =Iere\*Vq\*sin(Dq) - Ieim\*Vq\*cos(Dq)

dPe\_dIere =-Vq\*cos(Dq)

dPe\_dIeim =-Vq\*sin(Dq)

dQe\_dVq =Ieim\*cos(Dq) - Iere\*sin(Dq)

dQe\_dDq =- Iere\*Vq\*cos(Dq) - Ieim\*Vq\*sin(Dq)

dQe\_dIere =-Vq\*sin(Dq)

dQe\_dIeim =Vq\*cos(Dq)