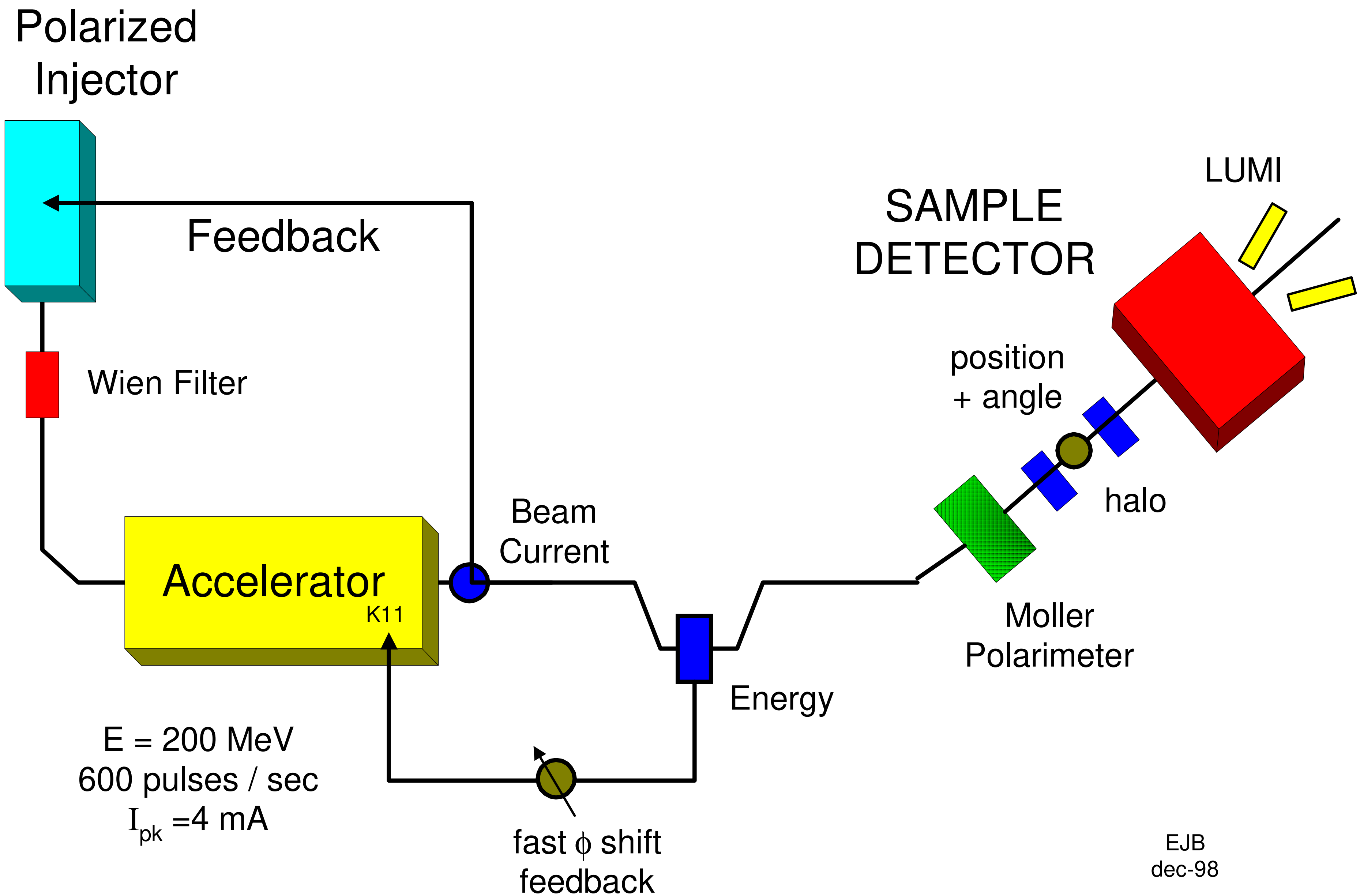SAMPLE BEAM LINE