

dients	513
17.2.1 Case A. Segmented Limiter with $j_{\perp} = 0$	514
17.2.2 Case B. Continuous Limiter with $j_{\perp} = 0$	514
17.2.3 Case C. Segmented Limiter with $\sigma_{\perp}^{\text{cond}} \rightarrow \infty$	516
17.2.4 Case D. Continuous Limiter with $\sigma_{\perp}^{\text{cond}} \rightarrow \infty$	517
17.3 Inferring $V_{\text{plasma}}^{\text{SOL}}(r)$ from Probe Measurements of $V_{\text{float}}(r)$ and $T_e(r)$	520
17.4 Thermoelectric Currents Driven By Parallel Temperature Gradients	520
17.5 Cross-Field Currents	525
17.5.1 Experimental Results	525
17.5.2 Simple Models for σ_{\perp}	527
17.5.3 Models for σ_{\perp} in a Tokamak	530
17.6 A Concluding Comment	535
References	535
18 Drifts in the SOL	537
18.1 Experimental Observations Implying the Presence of Drifts in the SOL	537
18.2 Definitions	539
18.3 The Consequences of $\mathbf{E} \times \mathbf{B}$ Drifts	542
18.3.1 The Radial and Poloidal $\mathbf{E} \times \mathbf{B}$ Drifts	542
18.3.2 Comparison of Drift Fluxes with the Basic SOL Fluxes	546
18.3.3 Comparison of Radial and Poloidal Drift Fluxes	546
18.3.4 The Effect of Poloidal $\mathbf{E} \times \mathbf{B}$ Drift on SOL Asymmetries	548
18.3.5 The Effect of Radial $\mathbf{E} \times \mathbf{B}$ Drift on SOL Asymmetries	553
18.3.6 Comments on the Effects of Radial and Poloidal $\mathbf{E} \times \mathbf{B}$ Drifts	555
18.4 Diamagnetic Drifts and Currents in the SOL	556
18.5 Pfirsch-Schlüter flows	561
18.6 Heat Flux Drifts in the SOL	565
18.7 Two Alternative Descriptions of Drifts	565
18.8 A Concluding Comment	568
References	568
19 The Relation Between SOL and Main Plasma Density for Divertors	570
References	574
20 Extracting $\chi_{\perp}^{\text{SOL}}(r)$ From Target Plasma Data Using the Onion-Skin Method	575
20.1 The General Method	575
20.2 A Simple Two-Point Model for Estimating $\chi_{\perp}^{\text{SOL}}$ and n_u	580
20.3 Examples from JET	582
References	586
21 Measurements of D_{\perp}^{SOL}, $\chi_{\perp}^{\text{SOL}}$ and the Decay Lengths for Divertor SOLs	588
References	602
22 MARFEs	603
22.1 Experimental Observations	603
22.2 Modelling MARFEs	605
22.3 Divertor MARFEs	612
References	614
23 The Radiating Plasma Mantle	615
References	620
24 Z_{eff}, P_{rad} and the Relation Between Them	621
References	628
25 Further Aspects of the Sheath	629
25.1 The Ion Velocity Distribution at the Sheath Edge	629