Table S4 Summary of SNPs information. HE, hyperaccumulating ecotype of *S. alfredii* Hance; NHE, non-hyperaccumulating ecotype of *S. alfredii* Hance.

| Summary of SNPs        | No.(%) of HE | No.(%) of NHE |
|------------------------|--------------|---------------|
| Total SNPs             | 149668 (100%)| 319830 (100%) |
| Non coding region SNPs | 94548 (63.17%)| 170673 (53.36%) |
| Coding region SNPs     | 55120 (36.83%)| 149157 (46.64%) |
| Synonymous SNPs        | 54955 (36.72%)| 148864 (46.54%) |
| Nonsynonymous SNPs     | 165 (0.11%)  | 293 (0.09%)   |