

```
public static int sumArray(int[] array) {  
    int result = 0;  
    for (int i = 0; i < array.length; i++) {  
        result = result + array[i];  
    }  
    return result;  
}
```

The diagram illustrates the Abstract Syntax Tree (AST) for the provided Java code. The nodes are represented by colored circles, and the edges represent the syntactic relationships between them. The root node is the method declaration 'public static int sumArray(int[] array) {', which branches into the parameter list 'int[] array' and the method body '{'. The method body node further branches into the local variable declaration 'int result = 0;', the loop statement 'for (int i = 0; i < array.length; i++) {', and the return statement 'return result;'. The loop statement node branches into the loop header 'for (int i = 0; i < array.length; i++)' and the loop body '{'. The loop header node branches into the loop variable declaration 'int i = 0;', the loop condition 'i < array.length', and the loop increment 'i++'. The loop body node branches into the loop body statement 'result = result + array[i];'. The return statement node branches into the return expression 'result'.